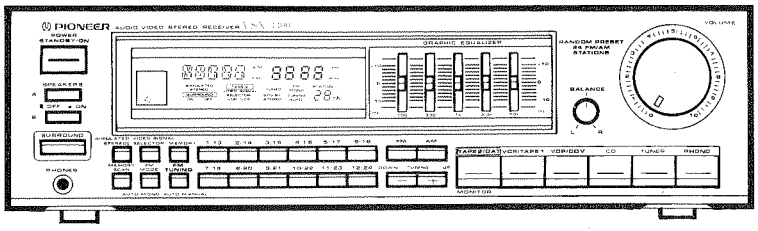
Operating Instructions

AUDIO/VIDEO STEREO RECEIVER

VSX-3300
VSX-3300S



The VSX-3300 may be supplied with CU-AV70 programmable remote control unit (box marked VSX-3300S) or CU-VSX004 conventional remote control unit (box marked VSX-3300).
The receiver itself is identical for the VSX-3300 and VSX-3300S.

Thank you for buying this Pioneer product.
Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference.
In some countries or regions, the shape of the power plug and power outlet may sometimes differ from that shown in the explanatory drawings. However, the method of connecting and operating the unit is the same.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

IMPORTANT NOTICE
[For U.S. and Canadian models]

The serial number for this equipment is located on the rear panel. Please write this serial number on your enclosed warranty card and keep it in a secure area. This is for your security.

[For Canadian model]

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

ATTENTION: POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISSE AVEC UN PROLONGATEUR UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

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The future of sound and vision.

IMPORTANT

The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION:
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

SAFETY INSTRUCTIONS

READ INSTRUCTIONS - All the safety and operating instructions should be read before the appliance is operated.

RETAIN INSTRUCTIONS - The operating instructions should be retained for future reference.

HEED WARNING - All warnings on the appliance and in the operating instructions should be adhered to.

FOLLOW INSTRUCTIONS - All operating and use instructions should be followed.

WATER AND MOISTURE - The appliance should not be used near water – for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

LOCATION - The appliance should be installed in a stable location.

WALL OR CEILING MOUNTING - The appliance should not be mounted to a wall or ceiling.

VENTILATION - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

HEAT - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

POWER SOURCES - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

POWER-CORD PROTECTION - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

POLARIZATION - If your purchased product is provided with a polarized power plug, please read the following instructions. This product is equipped with a polarized alternating current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

CLEANING - The appliance should be cleaned only with a polishing cloth or a soft dry cloth. Never clean with furniture wax, benzine, insecticides or other volatile liquids since they may corrode the cabinet.

POWER LINES - An outdoor antenna should be located away from power lines.

NONUSE PERIODS - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

OBJECT AND LIQUID ENTRY - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

DAMAGE REQUIRING SERVICE - The appliance should be serviced by a Pioneer authorized service center or qualified service personnel when:

- The power-supply cord or the plug has been damaged; or
- Objects have fallen, or liquid has been spilled into the appliance; or
- The appliance has been exposed to rain; or
- The appliance does not appear to operate normally or exhibits a marked change in performance; or
- The appliance has been dropped, or the enclosure damaged.

SERVICING - The user should not attempt to service the appliance beyond that described in the operating instructions. For all other servicing, contact the nearest Pioneer authorized service center.

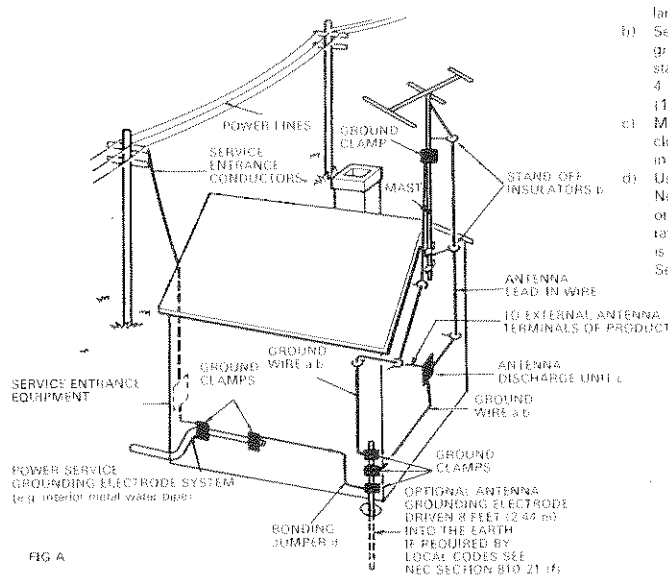

POWER LINES
GROUND CLAMP
SERVICE ENTRANCE CONDUCTORS
MAST
STAND-OFF INSULATORS b
ANTENNA LEAD IN WIRE
TO EXTERNAL ANTENNA TERMINALS OF PRODUCT
GROUND WIRE a b
GROUND CLAMPS
ANTENNA DISCHARGE UNIT c
SERVICE ENTRANCE EQUIPMENT
GROUND WIRE a b
GROUND CLAMPS
POWER SERVICE GROUNDING ELECTRODE SYSTEM (e.g. interior metal water pipe)
OPTIONAL ANTENNA GROUNDING ELECTRODE DRIVEN 8 FEET (2.44 m) INTO THE EARTH IF REQUIRED BY LOCAL CODES SEE NEC SECTION 810-21 (f)
BONDING JUMPER d

FIG A

OUTDOOR ANTENNA GROUNDING - If an outside antenna is connected to the antenna terminal, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges.
In the U.S.A., section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Fig. A.

a) Use No. 10 AWG (5.3 mm²) copper, No. 8 AWG (8.4 mm²) aluminum, No. 17 AWG (1.0 mm²) copper-clad steel, bronze wire, or larger, as ground wire.
b) Secure antenna lead-in and ground wires to house with stand-off insulators spaced from 4 feet (1.22 meters) to 6 feet (1.83 meters) apart.
c) Mount antenna discharge unit as closely as possible to where lead-in enters house.
d) Use jumper wire not smaller than No. 6 AWG (13.3 mm²) copper, or the equivalent, when a separate antenna-grounding electrode is used.
See NEC Section 810-21 (j).

BEFORE OPERATING, ADJUST THE POSITION OF THESE SWITCHES

LINE VOLTAGE SELECTOR SWITCH

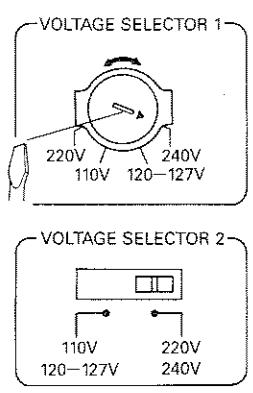
Only multi-voltage models are provided with this switch. U.S., Canadian, European, U.K., and Australian models are not provided with this switch.

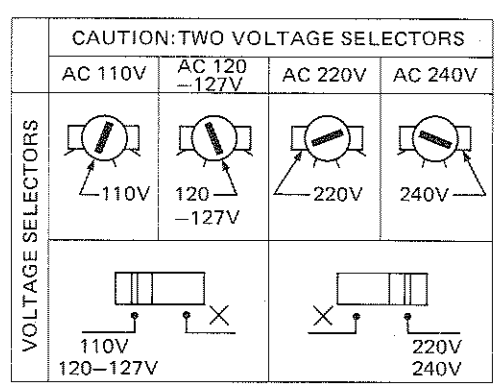
Mains voltages in Saudi Arabia are 127V and 220V only. Never use this model with 110V setting in Saudi Arabia.

The line voltage selector switches are on the rear panel. Before your model is shipped from the factory, this switches are set to the power requirements of the destination. Check that they are set properly before plugging the power cord into the AC outlet. If the voltages are not properly set or if you move to an area where the voltage requirements differ, adjust the selector switches as follows.

1. Use a medium-size screwdriver.
2. Insert the screwdriver into the groove on the voltage selector, and adjust so that the tip of the groove points to the voltage value of your area.

Medium-size screwdriver





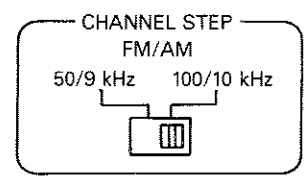
CHANNEL STEP SWITCH
(Not available on U.S. and Canadian models)

The unit has been factory preset to the channel allocation for the area in which it is to be sold. If these values are set incorrectly, the frequency display may stop at the wrong frequency, or sound may be distorted, resulting in an inability to reproduce reception signals at their proper sound quality. For this reason, be sure to confirm that the values are set correctly before first using the unit.

[100 kHz/10 kHz] position:
Set to this position for areas with FM reception step of 100 kHz, AM 10 kHz.

[50 kHz/9 kHz] position:
Set to this position for areas with FM reception step of 50 kHz, AM 9 kHz.

NOTE:
When unsure about the channel allocation for your area, consult your dealer for correct information.



FEATURES

The VSX-3300 is an audio-visual component combining the functions of receiver, wireless remote control and audio-video selector. It will play a central role in your enjoyment of audio-visual media.

- **SURROUND FUNCTION**

Provided with a surround function utilizing a speaker matrix.

- **5-ELEMENT GRAPHIC EQUALIZER**

The receiver is provided with a graphic equalizer which enables you to change the sound quality as desired when playing a program source.

- **DUBBING MODE**

For making videotape recordings from VDP/CDV (VideoDisc or compact disc with video) sources.

- **VIDEO SIGNAL SELECTOR (Simulcast function)**

Allows free combination of various audio and video sources during playback and over-dubbing, enabling you to produce your own original background videos.

- **MEMORY SCAN Function**

The stations set in the STATION CALL switches are received in order when the MEMORY SCAN switch is pressed.

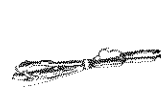
- **VOLUME CONTROL**

Motor drive control with LED indicator.

CHECKING ACCESSORY ITEMS

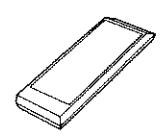
The VSX-3300 may be supplied with CU-AV70 programmable remote control unit (box marked VSX-3300S) or CU-VSX004 conventional remote control unit (box marked VSX-3300).

FM T-type Antenna



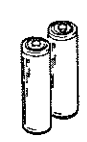
AM Loop Antenna

Remote control unit



VSX-3300S — CU-AV70
VSX-3300 — CU-VSX004

Dry cell battery × 2



VSX-3300S — size "AA" (IEC LR6/AM-3)
VSX-3300 — size "AAA" (IEC R03/SUM-4)

SURROUND SYSTEM

What is surround sound?

With ordinary stereo, sound normally comes only from speakers in front of the listener. In a concert hall or theater, though, sound reflected from the walls and ceiling reaches the listener from all directions. This is what accounts for the feeling of ambience or spaciousness of a live performance. Surround sound works to reproduce these effects to provide fuller, more "live" sound.

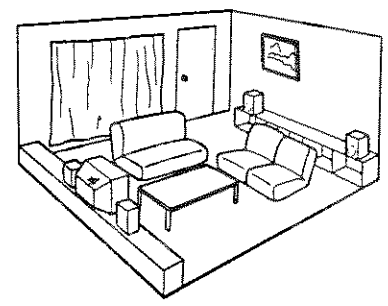
Speaker System Placement Examples

The sound effects obtained in a surround system depend on speaker placement. Experiment with various arrangements to find the one most suited to your tastes.
Placing the speakers so that they are slightly higher than ear level contributes to sound quality.

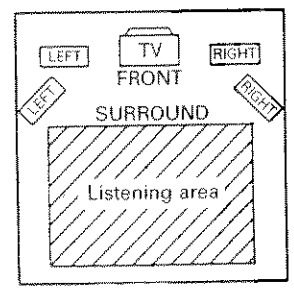
[Example A:]
Sound appears to come from directly in front of listener. Good for listening to music recordings.

[Example B:]
Offers most varied effects; good for watching sports programs or listening to live recordings.

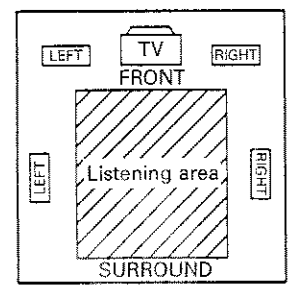
[Example C:]
Good sound dispersion; recommended for movies, etc.



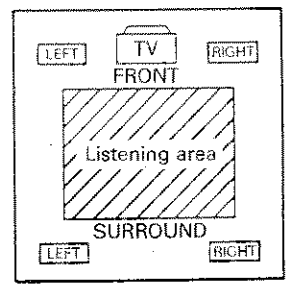
Example A:



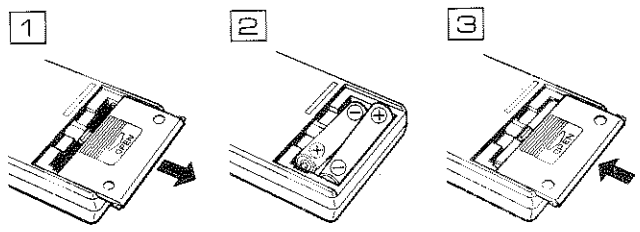
Example B:



Example C:



INSERTING THE BATTERIES INTO THE REMOTE CONTROL UNIT

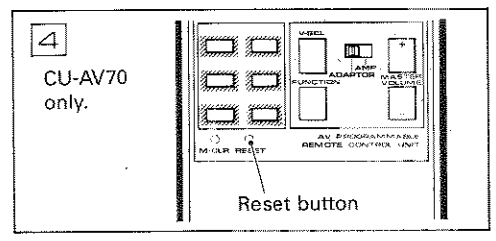


For CU-VSX004:

[1] Remove the cover of the battery compartment on the reverse side of the remote control unit. This can easily be done by pressing down on the cover with your thumb and pulling it in the direction of the arrow.
[2] Take out the two size "AAA" [IEC R03 (UM-4)] dry cell batteries supplied and load them into the battery compartment, taking care to follow the markings on the compartment.
[3] Replace the cover of the battery compartment.

For CU-AV70:

[1] Remove the cover of the battery compartment on the reverse side of the remote control unit. This can easily be done by pressing down on the cover with your thumb and pulling it in the direction of the arrow.
[2] Take out the two size "AA" [IEC LR6 (AM-3)] dry cell batteries supplied and load them into the battery compartment, taking care to follow the markings on the compartment.
[3] Replace the cover of the battery compartment.
[4] Press the RESET switch on the front lower left with the tip of a pen, etc.

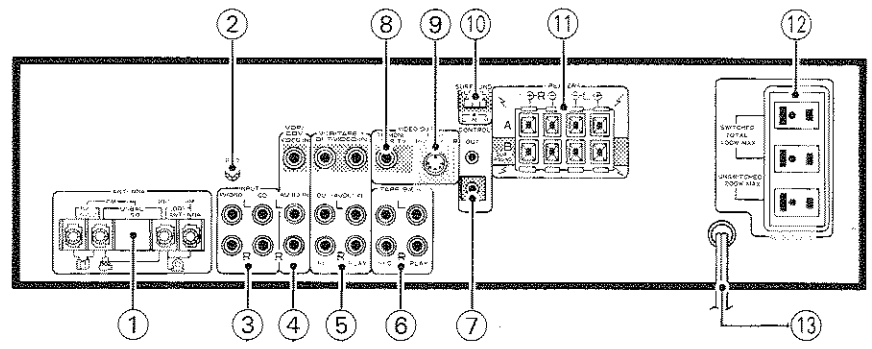


Cautions for handling dry cell batteries

Misusing dry cell batteries can result in electrolyte leakage or explosions. Bear in mind the following points for getting the most out of your batteries.

- When loading the batteries into the battery compartment, make sure the plus ⊕ and minus ⊖ polarities correspond to the markings on the compartment.
- Even though they may be the same shape, batteries come with different voltage ratings. Do not mix or use different types of batteries together. Use only the same kind of batteries.
- Do not mix up new batteries and used batteries but replace all the batteries at the same time.
- Do not heat up, disassemble or short circuit batteries or throw them into a fire.

REAR PANEL FACILITIES



① FM/AM ANTENNA terminals
Use these antenna terminals for reception of FM and AM broadcasts.

② GND terminal
Connect to the ground lead of a turntable.

③ INPUT jacks
PHONO .... Connect to the output cables from a turntable.
CD ..... Connect to the output jacks of a compact disc player.

④ VDP/CDV jacks
[VIDEO IN]
When watching the video image from a LD player (VDP) or a CDV player used for playback, connect its VIDEO OUTPUT jack here.
[AUDIO IN (L, R)]
When playing back the audio channel from a LD player (VDP) or a CDV for playback, connect its AUDIO OUTPUT jacks here.

⑤ VCR/TAPE 1 jacks
[VIDEO OUT]
When recording program materials from the video component connected to the VDP/CDV jacks, connect to the VIDEO INPUT jack of the VCR used for recording.
[VIDEO IN]
When watching the video image from a VCR used for recording, connect its VIDEO OUTPUT jack here.
[AUDIO OUT/REC (L, R)]
When recording program materials from the video component connected to the VDP/CDV jacks, or when recording music from an audio component source, connect to the AUDIO INPUT jacks of the VCR/TAPE 1 used for recording. When connecting a tape deck, connect with the REC (input) terminals of the tape deck.
[AUDIO IN/PLAY (L, R)]
When watching the audio channel from a VCR used for recording, connect its AUDIO OUTPUT jacks here. When connecting a tape deck, connect with the PLAY (output) terminals of the tape deck.

⑥ TAPE 2/DAT jacks
Connect these jacks to the tape deck or DAT (digital audio tape)
Connecting for Recording
The tape recording jack (TAPE REC) on the tape deck or DAT should be connected to the REC/OUT side of the TAPE jack on the receiver with a pin-plug connecting cord.
Connecting for Playback
Connect the TAPE PLAY jack on the tape deck or DAT and the PLAY/IN side of the TAPE jack on the receiver with a pin-plug connecting cord.

⑦ REMOTE CONTROL IN/OUT jacks
IN: Connect this terminal to other Pioneer components when using those components to control this unit.
OUT: Connect this terminal to other Pioneer components when using the remote control of this unit to control the other components.

⑧ VIDEO OUT TO MONITOR TV jack
Use to connect a TV set for watching program materials from the VCR or VDP connected to this unit.
Connect to a monitor TV or to a TV set with video input terminal.

⑨ VIDEO OUT TO RF MODULATOR jack
Use to connect a TV set for watching program materials from the VCR or VDP connected to this unit.
Use to connect a normal TV set. When performing connections, the RF MODULATOR JA-RF5 (sold separately) is required. By connecting an RF modulator, video signals can be converted to VHF signals (U.S. channel 3 or 4), thus allowing this unit to be used to view the selected source on a normal television set.

NOTE:
- *A "normal TV set" as noted above is one for which RF connections alone are possible.*
- *Sound is not output from the TO RF MODULATOR jack. Use the speakers connected to this unit to listen to the sound.*

⑩ SURROUND LEVEL selector switch
By selecting one of the three positions (L: Low, M: Mid, H: High), the sound volume from the surround speakers can be changed.

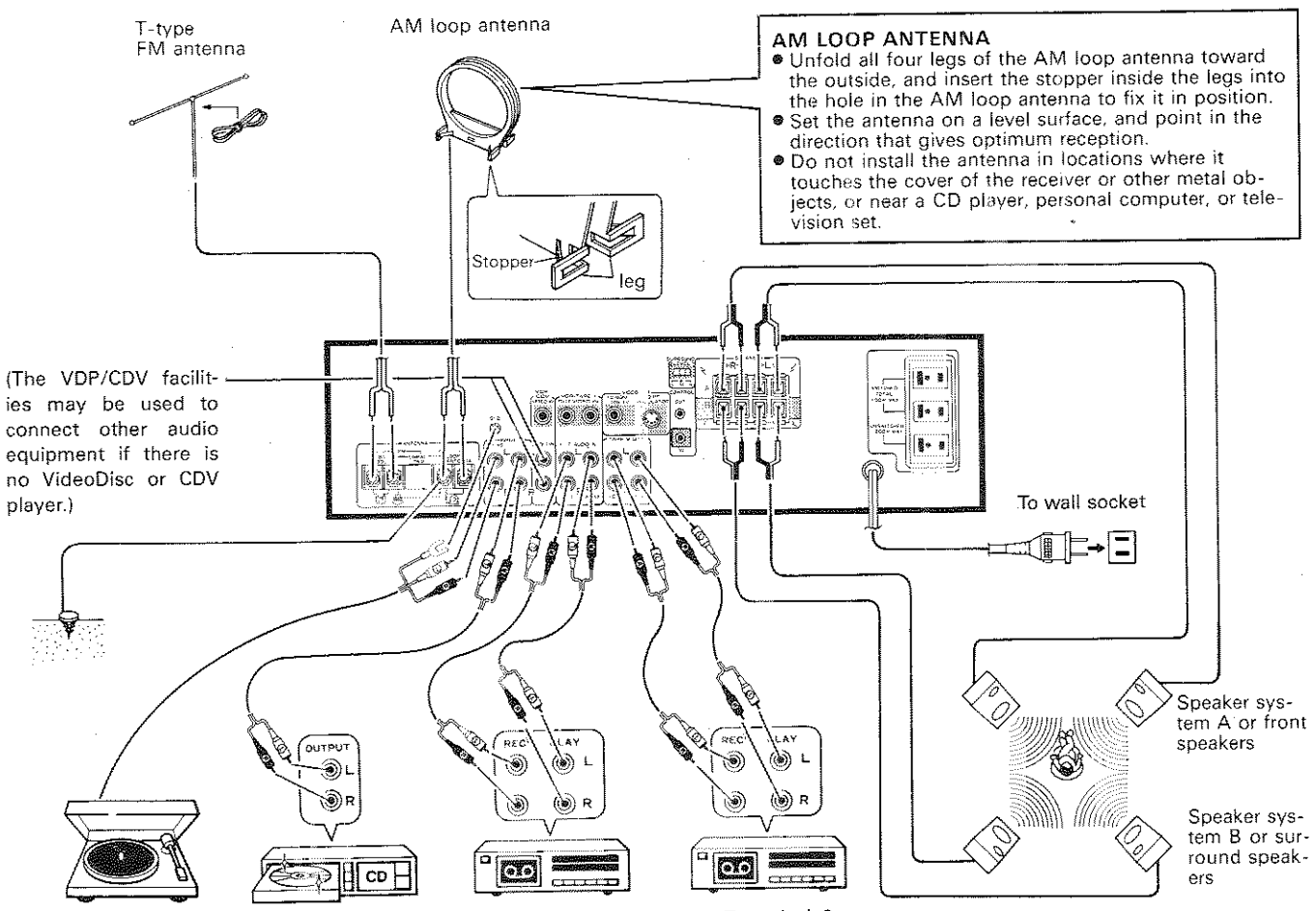
⑪ SPEAKERS terminals
A: Connect to a first set of speakers (or the front speakers in a surround system).
B: Connect to a second set of speakers (or the surround speakers in a surround system).

⑫ AC OUTLETS
[SWITCHED TOTAL 100 W MAX]
Power supplied through these outlets is turned on and off by the receiver POWER switch. Total electrical power consumption of connected equipment should not exceed 100 W.
[UNSWITCHED 200 W MAX]
Power flows continually to this outlet, regardless of whether the receiver is switched ON or OFF. Electrical power consumption of the connected equipment should not exceed 200 W.
The equipment should be disconnected by removing the main plug from the wall socket when not in regular use, e.g. when on vacation.

NOTE:
Do not connect appliances with high power consumption such as heaters, irons, or television sets to the AC OUTLETS in order to avoid overheating or fire risk.
This can cause the receiver to malfunction.

⑬ Power Supply cord

AUDIO SYSTEM CONNECTIONS


T-type
FM antenna
AM loop antenna
AM LOOP ANTENNA
● Unfold all four legs of the AM loop antenna toward the outside, and insert the stopper inside the legs into the hole in the AM loop antenna to fix it in position.
● Set the antenna on a level surface, and point in the direction that gives optimum reception.
● Do not install the antenna in locations where it touches the cover of the receiver or other metal objects, or near a CD player, personal computer, or television set.
Stopper
leg
(The VDP/CDV facilities may be used to connect other audio equipment if there is no VideoDisc or CDV player.)
To wall socket
OUTPUT
L
R
CD
REC
PLAY
Speaker system A or front speakers
Speaker system B or surround speakers
Turntable
CD player
Tape deck 1
Tape deck 2
or DAT

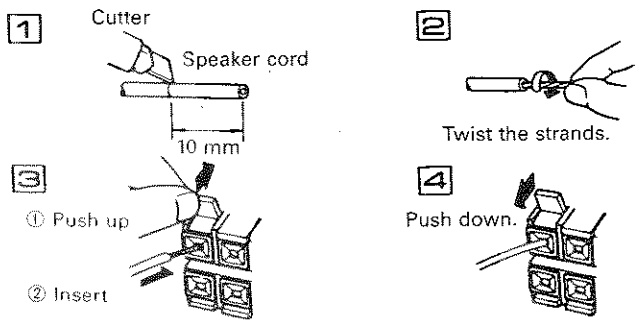
Antenna ground

Although grounding is not necessary for reception it is recommended for protection against damage from lightning if an outdoor FM antenna is used. Grounding is recommended as well, to help reduce noise and humming.

NOTE:
Never make the ground connection to a gas pipe as sparks could cause the gas to ignite.

Audio and video input/output jacks of this unit are dull tin-plated, aiming at high quality.

Connecting the speaker cords



Connecting the input/output cords

When another stereo component (purchased separately) is connected, note the following instructions:

- Connect the plugs properly. Faulty connections can cause noise and also breakdowns and failures.
- The white terminal is for the left channel and the red terminal is for the right channel.

NOTE ABOUT SPEAKER CONNECTIONS

When using either A or B:

- The speaker systems used should have an impedance of between 6 and 16 ohms.

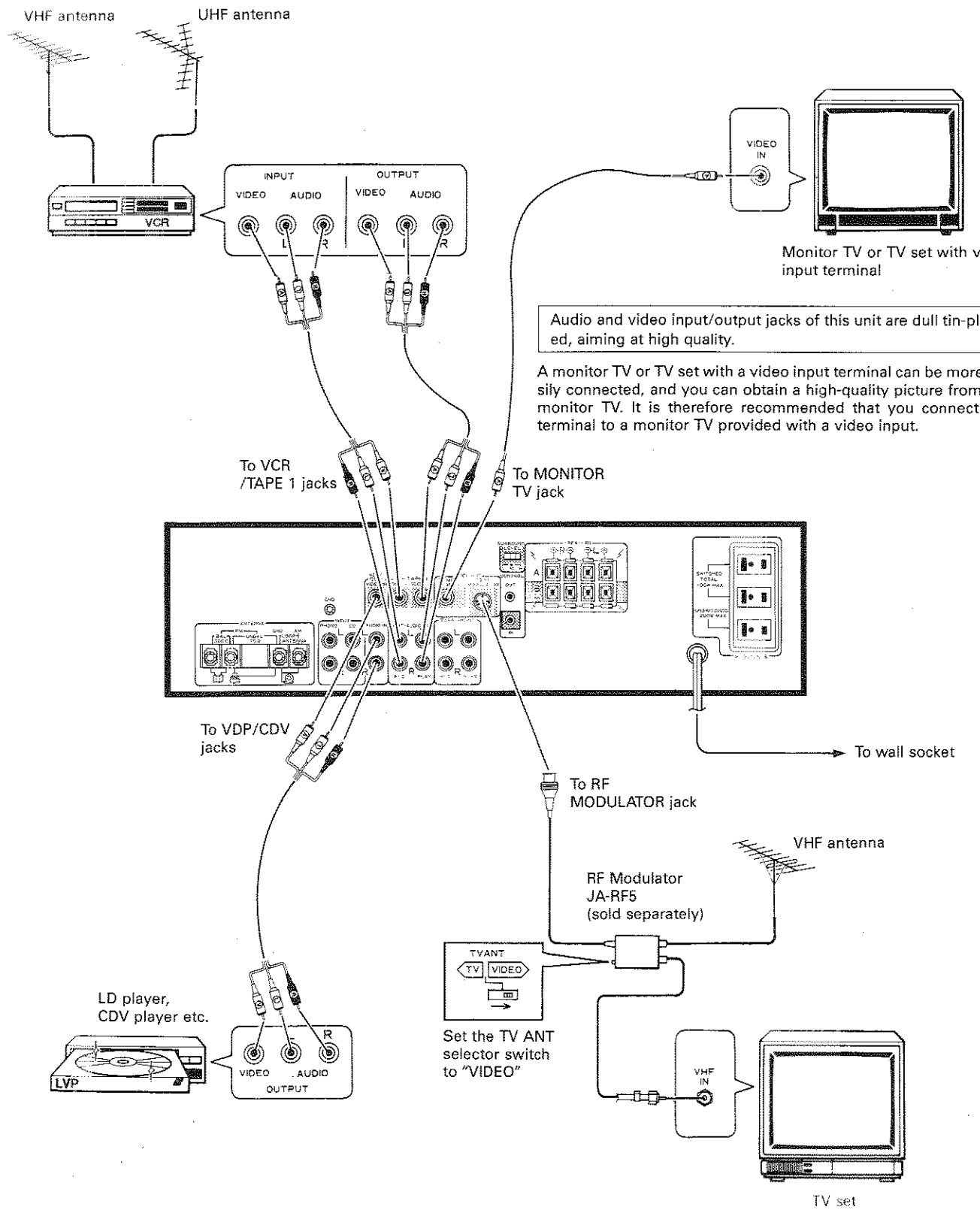
When using A and B simultaneously:

- The speaker systems used should have an impedance of between 12 and 32 ohms.

When using a surround system (SURROUND switch ON):

- The speaker systems used should have an impedance of between 8 and 16 ohms.
- Be sure that connections are secure. Check to make sure that wires do not protrude from their terminals.
- Do not allow the speaker cords to become shorted. Damage may result to your unit.
- Do not attempt to simultaneously connect two sets of speakers to a single side (A or B). When using two sets of speakers, connect one set to side A and one set to side B.

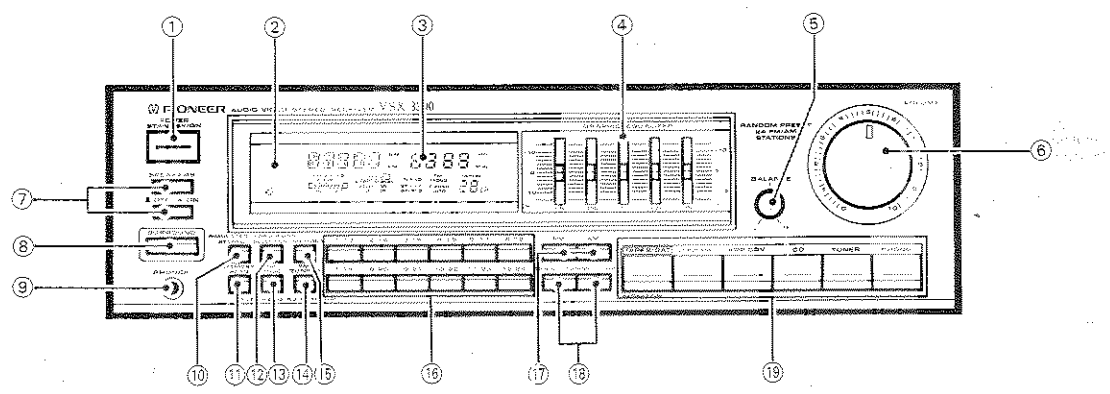
VIDEO SYSTEM CONNECTIONS



Audio and video input/output jacks of this unit are dull tin-plated, aiming at high quality.

A monitor TV or TV set with a video input terminal can be more easily connected, and you can obtain a high-quality picture from the monitor TV. It is therefore recommended that you connect the terminal to a monitor TV provided with a video input.

FRONT PANEL FACILITIES



① POWER switch
When this switch is pressed, power is supplied to the unit. Press the switch again to turn STANDBY.

② REMOTE SENSOR window

③ MULTI OPERATION DISPLAY panel

④ GRAPHIC EQUALIZER controls
The tone can be adjusted. The equalizer is divided into five frequency ranges (100 Hz, 330 Hz, 1 kHz, 3.3 kHz, 10 kHz) to tailor music to the individual taste of the listener.

⑤ BALANCE control
Use to adjust the sound balance between the left and right speakers. When turned to the L side, the sound of the right speaker decreases. When turned to the R side, the sound of the left speaker decreases.

⑥ VOLUME control

⑦ SPEAKERS switches (■ OFF, ▬ ON)
These are used to select the speaker through which you wish to listen.
A: When the speakers connected to A terminals are in use.
B: When the speakers connected to B terminals are in use.
- Turn both A and B speakers to OFF position when only the headphones are in use.

⑧ SURROUND selector switch
By pressing the A and B SPEAKERS switches, then pressing this switch ON, you can obtain surround reproduction. If you press this switch OFF again, normal reproduction from both speakers A and B will be obtained.

⑨ PHONES jack
Connect the plug on your headphones to this jack. To listen to a program through the headphones, set both SPEAKERS A and B switches to the OFF position.

⑩ SIMULATED STEREO switch
This turns monaural signals into simulated stereo sound. Use this when you wish to experience the sense of stereo presence with AM broadcasts, VCR or other monaural signal sources.

NOTE:
This function can also be used with stereo sources, but it will result in a different sound from the normal stereo sound.

⑪ MEMORY SCAN
Press this switch to scan the stations in the memory.

⑫ VIDEO SIGNAL SELECTOR switch
When recording simulcast programs, the recorded image can be selected from among VDP/CDV, VCR and video OFF.

⑬ FM MODE (AUTO/MONO) selector switch
Use to select the auto stereo mode or monaural mode when listening to FM broadcasts. The monaural mode has been selected when the "FM MONO" indicator is lit.
Auto stereo mode:
Normally leave in this mode for reception. When a stereo FM broadcast is received, it will be automatically reproduced in stereo sound.
Monaural mode:
When receiving distant stations or stations with weak broadcast signals, the input signal may be weak, thus resulting in increased noise during FM stereo broadcasts. In this event, setting the receiver to the monaural mode will reduce the noise. In this case, however, FM stereo broadcasts will be reproduced in monaural sound.

NOTE:
This switch has no effect on reception of AM broadcasts.

⑭ FM TUNING AUTO/MANUAL switch
Use this switch to select either the AUTO mode or the MANUAL mode. When the "AUTO" indicator is lit, the receiver is in the AUTO mode.

⑮ MEMORY switch
This is used to memorize stations. The FM MONO mode and FM AUTO STEREO mode will also be memorized.

⑯ STATION CALL switches
These switches are used to preset and recall desired broadcasting stations, together with the FM MONO mode and FM AUTO STEREO mode.

⑰ FM/AM selector switches
These switches are used to select either FM or AM reception.
FM: Press for FM reception.
AM: Press for AM reception.

⑱ TUNING switches (DOWN, UP)
These switches are used to raise or lower the tuning frequency in the FM or AM band.
UP: The FM or AM band is scanned in the direction of increasing frequency.
DOWN: The FM or AM band is scanned in the direction of decreasing frequency.

⑲ Audio/Video function switches

TAPE 2/DAT (MONITOR):
Press to play a tape or monitor recording on the tape deck connected to the TAPE 2/DAT terminals.

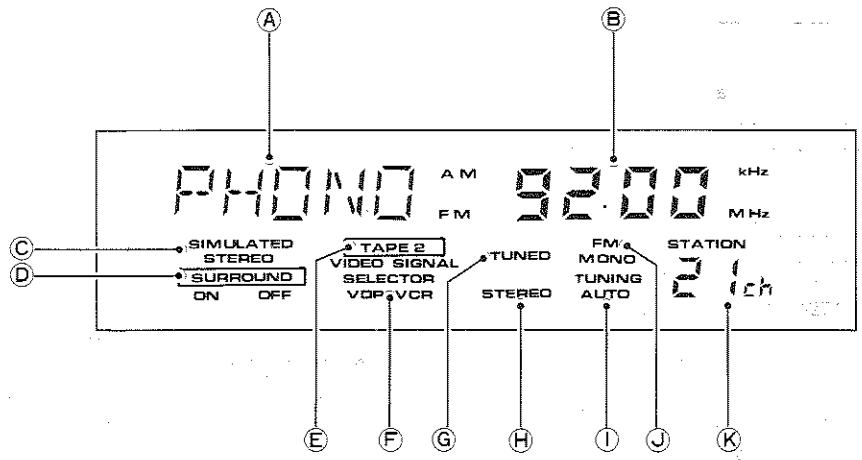
VCR/TAPE 1: Press to play the component connected to the VCR/TAPE 1 terminals.

VDP/CDV: Press to playing the component connected to the VDP/CDV terminals.

CD: Press when playing compact discs on a CD player.

TUNER: Press when listening to a radio broadcast.

PHONO: Press when playing records on a turntable.



MULTI-OPERATION DISPLAY panel

Ⓐ Indicates the function selected by the audio/video function switches.

Ⓑ Indicates frequency

Ⓒ SIMULATED STEREO indicator

Ⓓ SURROUND ON/OFF indicator

Ⓔ TAPE 2 indicator

Ⓕ VIDEO SIGNAL SELECTOR indicator

Ⓖ TUNED indicator

Ⓗ STEREO indicator

Ⓘ AUTO TUNING indicator

Ⓙ FM MONO indicator

Ⓚ STATION number indicator

GRAPHIC EQUALIZER CONTROLS

The advantage of the GRAPHIC EQUALIZER over conventional tone controls is that with the five controls of the GRAPHIC EQUALIZER it is possible to control five different narrow, distinct sections of the audio band. With conventional tone controls a setting for a bass or treble boost or cut will also affect the lower or upper mid frequencies. The frequency bands controlled by the five slide controls have been chosen to yield the maximum possible control action within the audio spectrum.

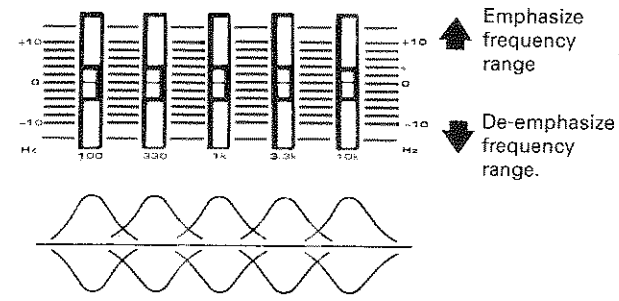
100 Hz: The 100 Hz control is very useful in enhancing low bass notes as in organ music.

330 Hz: The 330 Hz control will allow you to vary the upper bass frequencies.

1 kHz: The 1 kHz control is the presence control and can be used very effectively to emphasize or de-emphasize vocalists.

3.3 kHz: The 3.3 kHz control will add brilliance and clarity to brass instruments and violins.

10 kHz: The 10 kHz control can be used to make up for missing high frequencies absorbed by the environment and to add a natural crispness to music.

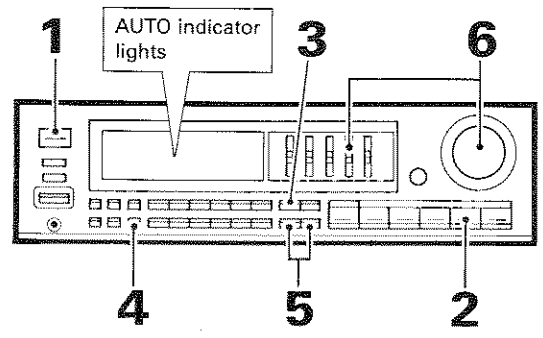


LISTENING TO THE BROADCAST

- Check that all terminals are properly connected before switching on the unit.

AUTO TUNING (FM only)

The electronic tuning circuit inside the unit will search for your desired station automatically.

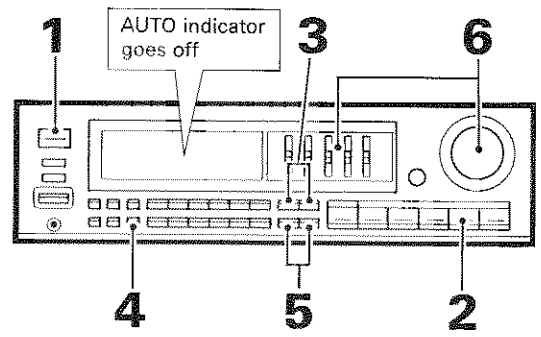


1. **Turn on the POWER switch of the unit.**
2. **Press the TUNER switch of the audio/video function switches.**
3. **Press the FM switch.**
4. **Press the FM TUNING AUTO/MANUAL switch to establish the AUTO tuning mode (the AUTO tuning indicator lights).**
5. **Press the TUNING switch "DOWN" or "UP" for a lower or higher frequency as desired.**

   The frequency will change rapidly during scanning. The AUTO TUNING will stop automatically when the station is located and the TUNED indicator will light up.

   NOTE:
   When the AUTO TUNING is in use, reception may not be possible over long distances or when signals are weak. At these times manual tuning is recommended.
6. **Adjust the volume with the VOLUME control and the tone with the GRAPHIC EQUALIZER controls.**

MANUAL TUNING



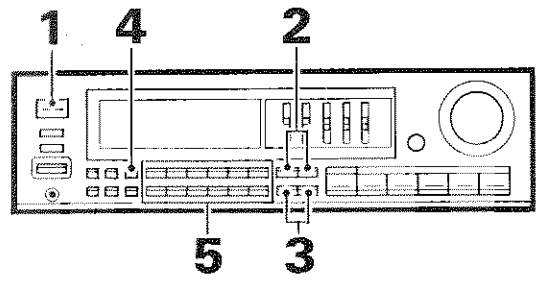
1. **Turn on the POWER switch of the unit.**
2. **Press the TUNER switch of the audio/video function switches.**
3. **Select your desired broadcasting band using the FM/AM selector switches.**
4. **Press the FM TUNING AUTO/MANUAL switch to establish the MANUAL tuning mode (the indicator goes off).**
5. **Use the TUNING switches to locate the frequency of your desired station.**

   For step-by-step searching, press the TUNING switch once and release it immediately. For continuous rapid scanning keep the TUNING switch pressed. The TUNED indicator will light up when the desired station is tuned in best.

   NOTE:
   The TUNED indicator will not function for broadcasts received over long distances or when signals are weak.
6. **Adjust the volume with the VOLUME control and the tone with the GRAPHIC EQUALIZER controls.**

PRESETTING STATIONS

PRESETTING



1 **Turn on the POWER switch of the unit.**
2 **Select band of station to be memorized.**
3 **Tune in desired station.**
- See the AUTO TUNING section for information on reception using Auto Tuning.
- See the MANUAL TUNING section for information on reception using Manual Tuning.

When memorizing an FM station, either press the FM MODE switch to forcibly memorize the station in the monaural mode, or memorize the station in the auto stereo mode.

4 **Press the MEMORY switch.**
- The display will flash (about 5 seconds).

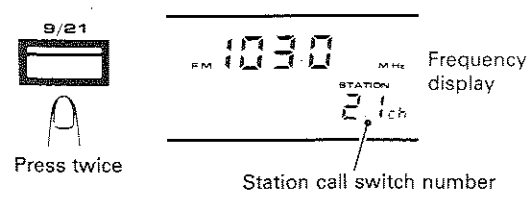
5 **Press the STATION CALL switch.**
- While the display is flashing, press the switch corresponding to the station which you wish to preset or re-preset.

When presetting a station to Mode 1 (e.g. presetting a station to No. 9):

By pressing the station call switch once, the station will be preset to Mode 1. (1 ~ 12)

When presetting a station to Mode 2 (e.g. presetting a station to No. 21):

By Pressing the station call switch twice, the station will be preset to Mode 2. (13 ~ 24)

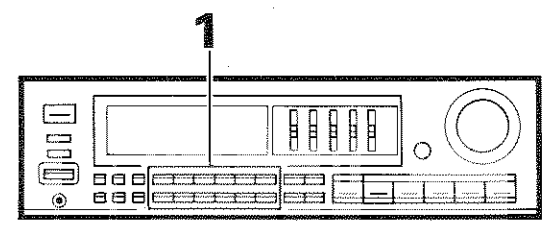


- After you press the STATION CALL switch, the display will flash for about 3 seconds, then the station will be memorized. If you press another switch while the display is flashing, the station will not be memorized.

MEMORY SCAN

Pressing the MEMORY SCAN switch, radio broadcasts preset in the memory are scanned in order for convenient confirmation. The scanning of preset stations can be cancelled by pressing the MEMORY SCAN switch once more or by pressing one of the STATION CALL switches.

RECEPTION USING PRESET TUNING



1 **Press the STATION CALL switch into which the desired station has been memorized.**
- To listen to a Mode 1 broadcast, press the switch once; and to listen to a Mode 2 broadcast, press it twice.
- By pressing the STATION CALL switch, the switch number will be displayed, then the frequency will be displayed.

NOTE:
If, for example, you wish to receive the station memorized in STATION CALL switch "13" when listening to the station memorized in switch "9", press switch "1/13" twice.

In this way, simple and accurate reception of any desired station is possible.

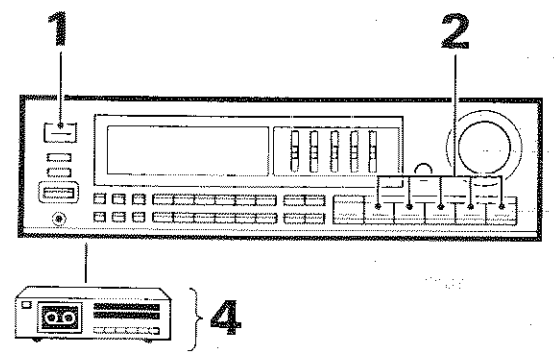
Note:
- *The contents of the STATION CALL switch will be preserved for several days, even if the receiver power cord is unplugged.*
- *If a preset station has been erased, reset it.*

Last station memory
- When the receiver POWER switch is pressed to turn the power on, the last station received before the power was previously turned off will be received again.
- If the FM or AM selector switch is pressed, when power is ON, the last station received before the FM or AM selector switch was previously pressed will be received again.

TO PERFORM RECORDING WITH A TAPE DECK

TAPE RECORDING

Sources selected with the function switches can be recorded on TAPE 1 and TAPE 2. However, tape playback can not be recorded.



1. **Turn on the POWER switch of the unit.**
2. **Select the sound source to be recorded.**
3. **Turn on (or start) the sound source to be recorded.**
4. **Operate the tape deck connected to the TAPE 2/DAT jacks or VCR/TAPE 1 jacks.**
   - For details of operating the tape deck, read the operating instructions of the tape deck.

Tape monitoring (TAPE 2/DAT)

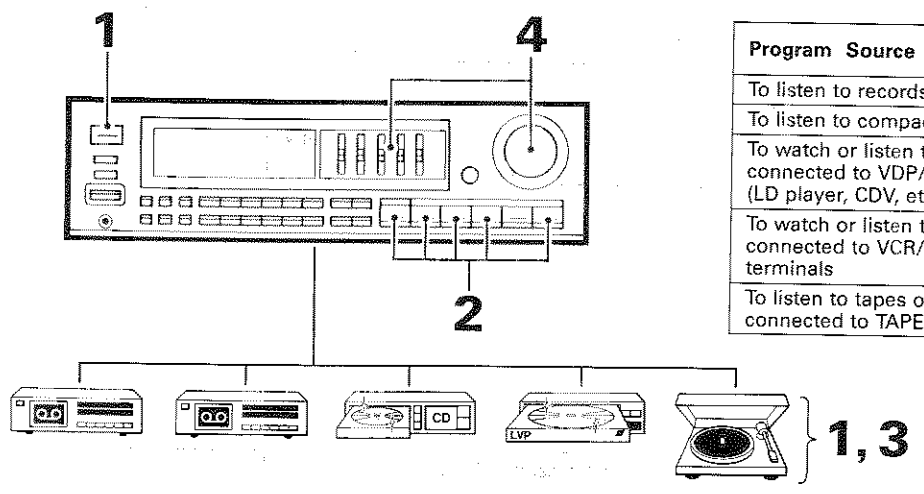
If a recording is being made on a 3-head tape deck, the recorded sound can be monitored through the speaker systems if the TAPE 2/DAT switch is pressed, depending on which TAPE 2/DAT jacks the tape deck is connected to. In this case, both recording and playback connections must be made.

NOTE:
If you have a 2-head open-reel deck or cassette deck, you will not be able to monitor the recorded sound even if you press the TAPE 2/DAT switch. However, you will be able to hear the program source sound.

Tape-to-tape Recording

The sound from the component (tape deck, etc.) connected to the VCR/TAPE 1 terminals can be recorded on the tape deck connected to the TAPE 2/DAT terminals. The sound from the tape deck connected to the TAPE 2/DAT terminals cannot be recorded on the component connected to the VCR/TAPE 1 terminals.

PLAYING OTHER MUSIC SOURCES



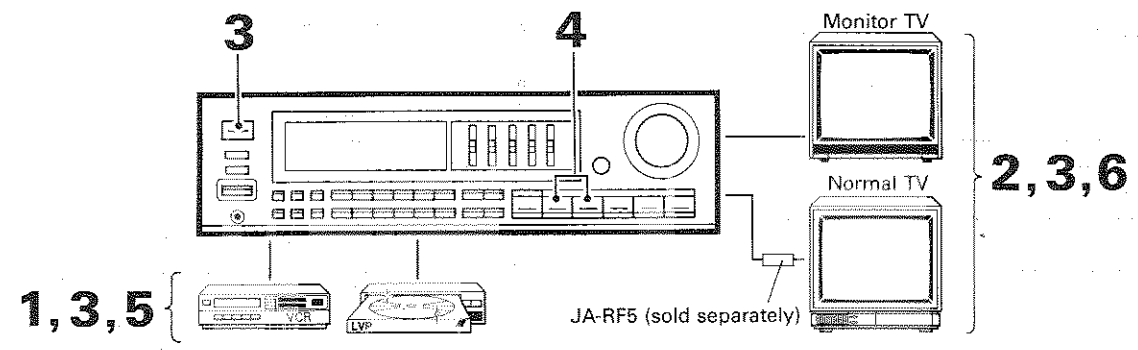
Program Source	Audio/video function switch
To listen to records	PHONO
To listen to compact discs	CD
To watch or listen to component connected to VDP/CDV terminals (LD player, CDV, etc.)	VDP/CDV
To watch or listen to component connected to VCR/TAPE 1 terminals	VCR/TAPE 1
To listen to tapes on tape deck connected to TAPE 2/DAT terminals	TAPE 2/DAT

1. **Turn on the POWER switch of the unit. Also turn on the power of the other audio components you wish to use.**
2. **Use the audio/video function switches as required to select the desired program source.**

* Turn ON the TAPE 2/DAT switch only when playing back the TAPE 2/DAT Deck. Make sure to turn it OFF for all other sound sources.

3. **Operate the appropriate stereo component to play back the program source.**
4. **Adjust the volume with the VOLUME control and the tone with the GRAPHIC EQUALIZER controls.**

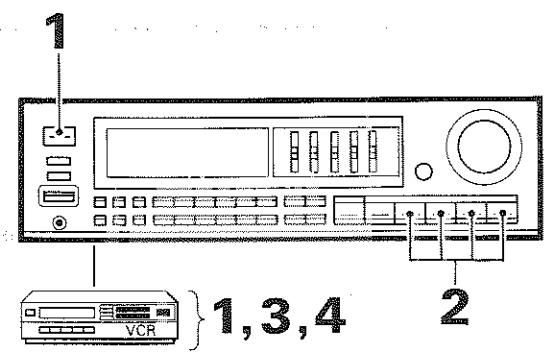
USING A TV SET TO WATCH PROGRAMS FROM CONNECTED VIDEO COMPONENTS



1. **Connect the video components to the VCR/TAPE 1 or VDP/CDV jacks.**
2. **Connect the TV set.**
- When using a normal TV set:
  Connect to the TV set using the RF modulator JA-RF5 (sold separately).
- When using a TV set equipped with video input terminals, or a monitor TV:
  Connect the monitor TV to the MONITOR TV jacks of the receiver.
3. **Turn on the POWER switch of the unit. Also turn on the power to the video components you wish to use and TV set (monitor TV).**
4. **Set the audio/video function switch to the appropriate video component to be played back.**
5. **Play back the video component.**
6. **Operate the TV set to display the playback picture.**
- When using normal TV sets, use the RF modulator JA-RF5 (sold separately), and set the TV set channel to the same open channels selected on the RF modulator.
- When using a TV set equipped with video input terminals, set to the video input playback mode.

VCR RECORDING

Refer to the connection procedures on page 7 and refer to the VCR Operating Instructions regarding proper operation procedures.

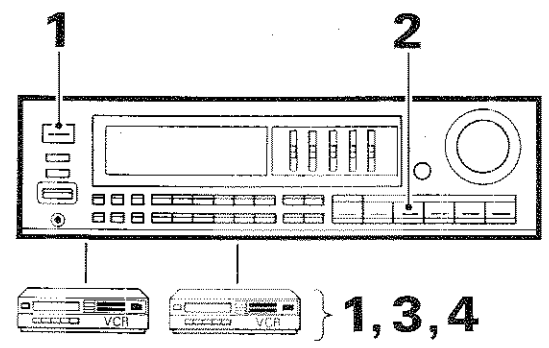


1. **Turn on the POWER switch of the unit. Also turn on the power to the VCR.**
2. **Use the audio/video function switch to select the desired program source. (except for the VCR/TAPE 1 and TAPE 2/DAT)**
   To choose a radio tuner program source, press the desired STATION CALL switch if the station has been preset. If the desired station has not been preset, tune in the station using Auto or Manual tuning.
3. **Insert a video cassette for recording into the VCR and adjust the recording level. For details, consult the Operating Instructions for the VCR used.**
4. **Start the program source and set the VCR to the recording mode.**
- The volume, balance, and tone controls have no effect on the recording.

NOTE:
- *Recording cannot be performed on a VCR connected to the VDP/CDV jacks.*
- *Tape 2 can not be used for VCR recording.*

VIDEO COPYING

Standard method

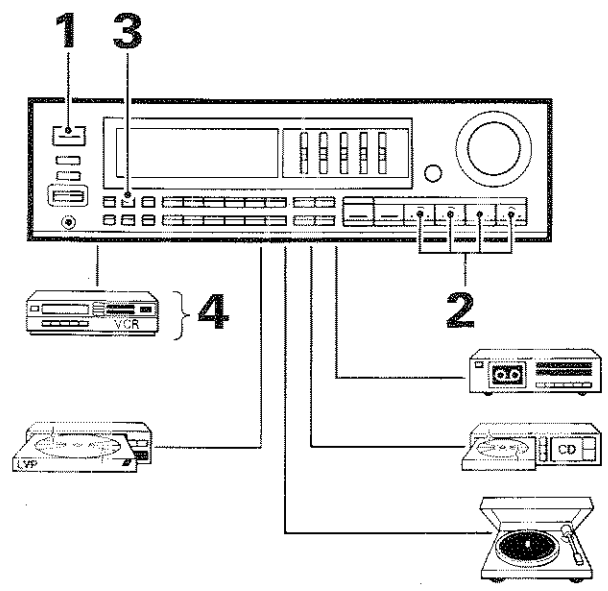


You can record from equipment connected to the VDP/CDV jacks to VCR connected to the VCR/TAPE 1 jacks.

NOTE:
In this case, copying cannot be performed in the opposite direction (VCR/TAPE 1 to VDP/CDV).

1. **Turn on the POWER switch of the unit. Also turn on the power to the VCR.**
2. **Set the audio/video function switch to the VDP/CDV.**
3. **Set the VCR connected to the VDP/CDV terminal to the playback mode.**
4. **Set the VCR connected to the VCR/TAPE 1 terminal to the recording mode.**

HOW TO USE THE VIDEO SIGNAL SELECTOR



You can freely select arbitrary video and audio sources, and create an original video tape. It is possible for example to combine the sound from an FM broadcast with the picture from the video component connected to the VDP/CDV terminals and record this on a VCR.

1. **Turn on the POWER switch of the unit. Also, turn on the power to the components which you wish to use.**
2. **Set the audio/video function switch in accordance with the audio source which you wish to listen to, then play the audio source.**
   To select a radio tuner program source, press the desired STATION CALL switch if the station has been preset. If the desired station has not been preset, tune in the station using Auto or Manual tuning.
3. **Set the VIDEO SIGNAL SELECTOR switch in accordance with the video source which you wish to watch, then play the video source.**
   Each time you press the switch, the video source will successively change.

Making a video recording

When VDP is selected with the VIDEO SIGNAL SELECTOR, the sound of the audio component selected with the audio/video function switches can be recorded on a VCR.

4. **Set the recording VCR to the recording mode.**

NOTE:
- *The VIDEO SIGNAL SELECTOR will be cleared when the audio/video function switch is pressed. Set the audio/video function switch before selecting the VIDEO SIGNAL SELECTOR.*

CAUTION:
If the switch is operated during recording, do so after setting the recording VCR to the pause mode. If the switch is operated when the tape is traveling during recording, the recorded image and sound may be disrupted at the point the switch is operated.

REMOTE CONTROL UNIT OPERATION

In addition to the present unit, the remote control unit can also be used to operate other Pioneer components (TV, VCR, VDP, Turntable, Tape deck or CD) bearing the SR mark.

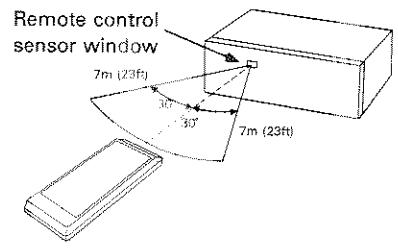
Range of remote control

When the remote control unit is pointed at the remote control sensor window on the receiver and any of its keys is pressed, the unit and other components can be operated by remote control.

Distance: Within a range of approx. 7 meters (23 feet) from the unit remote control sensor window

Angle: Within approx. 30 degrees from the center of the unit remote control sensor window

Remote control will not be possible if there is an obstacle between the remote control unit itself and the unit remote control sensor window.



Bringing the remote control unit closer to the sensor window increases the angle that enables remote control.

VSX-3300 REMOTE CONTROL UNIT (CU-VSX004)

① A/V selector switch

② TV power key

Use to turn power STANDBY/ON to a TV.

③ VCR power key

Use to turn power STANDBY/ON to a VCR.

④ RECEIVER power Key

⑤ PHONO keys

▶ (PLAY) ..... For performing record playback.
■ (STOP) ..... To stop record playback.

⑥ Audio/Video function keys

⑦ TAPE keys (When the A/V selector is "A")

Fast key (◀◀, ▶▶)

▶▶ (Side) ..... Winds the tape quickly from left to right.
◀◀ (Side) ..... Winds the tape quickly from right to left.
○ (Mute) ..... Press to eliminate unwanted portions during recording, or to create a non-recorded interval between selections.
● (REC) ..... Press to begin recording.

PLAY key (◀, ▶)

▶ (Side) ..... Press for forward-direction recording or playback.
◀ (Side) ..... Press for reverse-direction recording or playback.
▮▮ (Pause) ..... Press to temporarily pause recording or playback.
■ (Stop) ..... Press to stop tape travel and recording.

⑦ VCR keys (When the A/V selector is "V")

FAST Forward, Rewind key (◀◀, ▶▶)

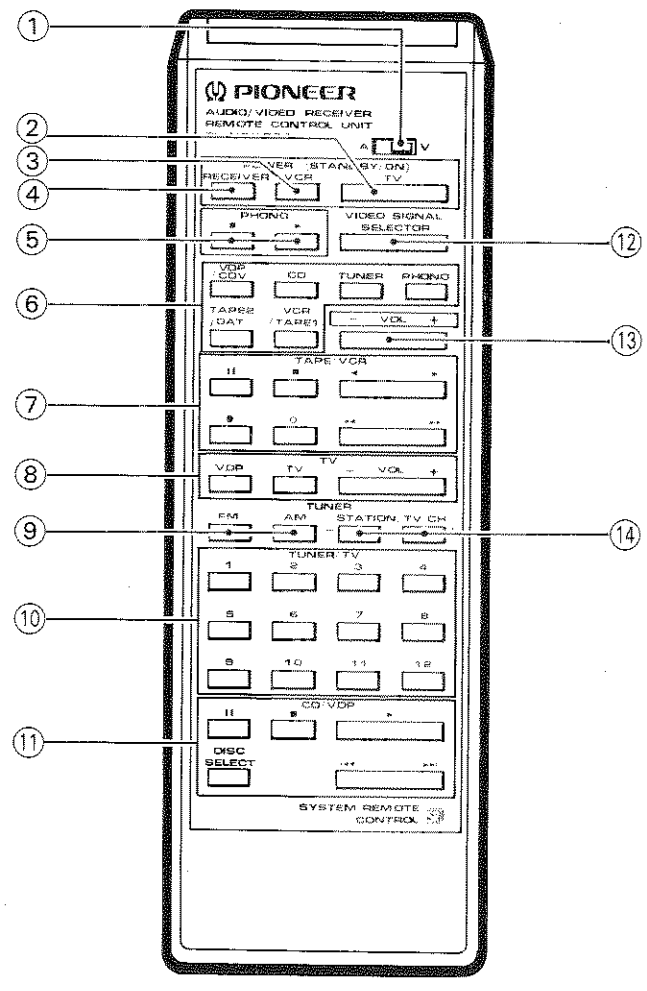
▶▶ Side(FF) ..... Advances the tape quickly.
◀◀ Side (REW) ... Rewinds the tape quickly.
● (REC) ..... Begins recording.

PLAY key

▶ Side (PLAY) ...Begins playback.
▮▮ ..... Temporarily interrupts playback or recording.

■ (Stop) ..... Stops tape travel.

NOTE:
The ○ key and ◀ side of play key do not function with VCR.



⑧ TV keys

VDP ..... Sets the TV set function to VDP.
TV ..... Sets the TV set function to TV.
VOL (–, +) ..... Increases (+) or reduces (–) the TV set sound volume.

⑨ BAND selector keys

Used to select an FM or AM broadcast.

⑩ TUNER STATION CALL Key (When the A/V selector is at "A")

Stations 1 through 12 are recalled when pressed once.
Stations 13 through 24 are recalled when pressed twice.

⑩ TV STATION CALL key (When the A/V selector is at "V")

When using a Pioneer TV with the mark, recalls TV channels.

⑪ CD keys (When the A/V selector is "A")

▶▶| (Track search) ... When pressed once, play advances to the beginning of the next track; when pressed continuously, advances to further tracks.
|◀◀ (Track search) ... When pressed once, returns to the beginning of the currently playing track; when pressed continuously, returns to earlier tracks.
▶ (Play) ..... Begins playback.
DISC SELECT ..... Used to select disc number (1–6) for playback.

NOTE:
Note that DISC SELECT key on the accessory remote control unit may not function, depending on the CD player used.

❚❚ (Pause) ..... Press to temporarily pause playback.
■ (Stop) ..... Press to stop playback.

⑪ VDP (LD player) keys (When the A/V selector is "V")

▶▶| (Scan) ..... Scanning in forward direction
|◀◀ (Scan) ..... Scanning in reverse direction
▶ (Play) ..... Switches the mode from stop (disc not rotating) to normal playback. Returns the mode from pause, still-frame, or multi-speed playback to normal playback. Starts chapter program playback.
❚❚ (Pause) ..... When pressed, picture and sound vanish and playback is temporarily interrupted. Press again to release the pause mode.
■ (Stop) ..... Stops playback.

NOTE:
The DISC SELECT key does not function with VDP.

⑫ VIDEO SIGNAL SELECTOR key

Has the same function as the VIDEO SIGNAL SELECTOR switch.

⑬ VOLUME key

⑭ TUNER STATION select key (When the A/V selector is "A")

Increases (+) or decreases (–) the tuner station number.

⑭ TV CHANNEL select key (When the A/V selector is at "V")

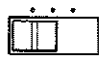
When using a Pioneer TV with the mark, increases (+) or decreases (–) the TV channel number.

VSX-3300S REMOTE CONTROL UNIT (CU-AV70)

① POWER switch:
For AMP, TV, and VCR power STANDBY/ON switching.

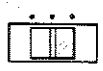
② TRANSMIT/LEARN indicator:
When the SR RECALL/USE/LEARN selector is at the SR RECALL or USE position:
The indicator flashes when a remote command key is pressed.
When the SR RECALL/USE/LEARN selector is at the LEARN position:
The indicator lights when the unit is in the LEARNING STANDBY mode.

③ SR RECALL/USE/LEARN selector:
SR RECALL:



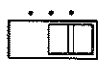
Set to this position if only Pioneer SR code compatible components will be controlled.

USE:



Set to this position if the remote will be used to control Pioneer SR code compatible components and components which use "learned " commands.

LEARN:



Set to this position when "teaching" this remote the commands of other remotes.

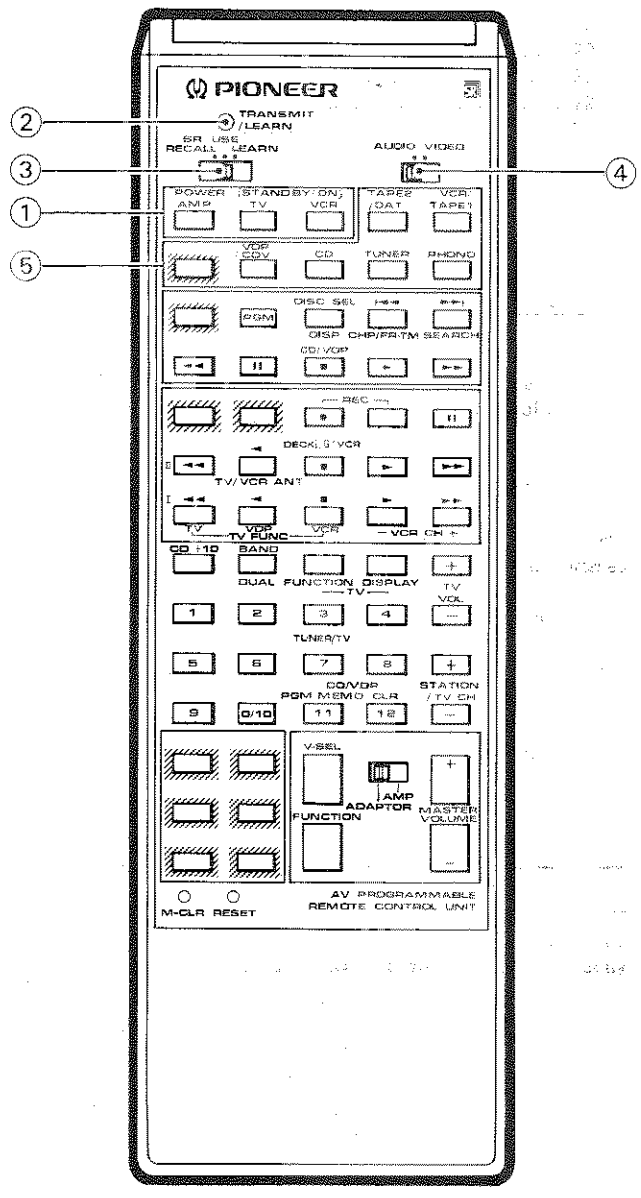
④ TRANSMISSION MODE switch:
AUDIO MODE:

Set to this position for remote operation of CD players, tape decks, tuners, and other audio components.

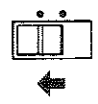
VIDEO MODE:

Set to this position for remote operation of VDP players, VCRs, TVs, and other video components.

⑤ FUNCTION switches
Switches receiver input function.



REMOTE CONTROL OF CASSETTE DECK



Set the TRANSMIT mode selector to AUDIO.

DECK II key:
Switches to the DECK II functions when using a double cassette deck.

(REC) key:
Selects the recording mode. Two keys must be pressed at the same time.

(PAUSE) key:
Temporarily interrupts recording or playback. Press again to resume.

(FF) key:
Fast forwards the tape in the direction of the arrows.

(PLAY) key:
Starts reverse playback.

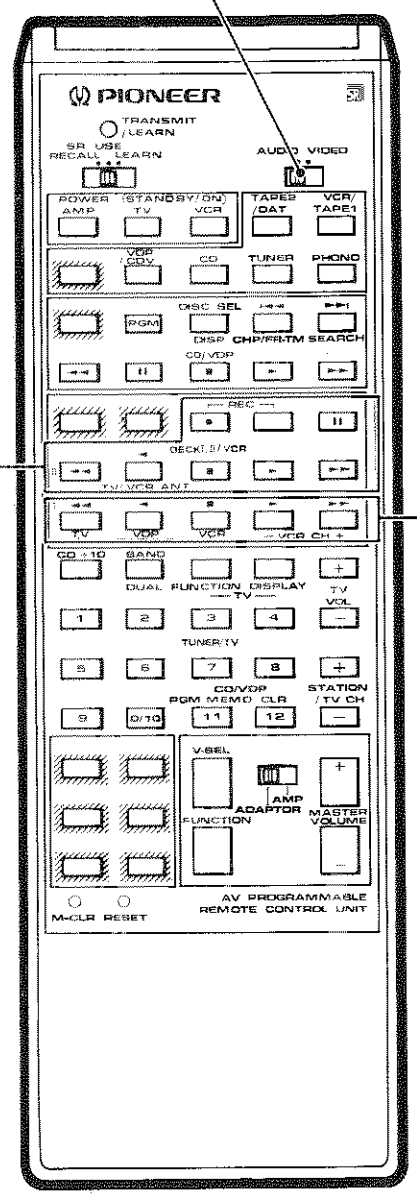
(STOP) key:
Stops the tape.

(PLAY) key:
Starts forward playback.

(FF) key:
Fast forwards the tape in the direction of the arrows.

NOTE:

- *The TAPE I/II selector switch on tape decks so equipped cannot be used to control TAPE I. Use the selector switch on the deck itself.*
  (If you set the switch on the deck to TAPE I, you can control it with the TAPE II keys on the remote control unit.)
- *The ◀ key can only be used with tape decks capable of reverse play.*
- *Some keys will not work with all types of tape deck. Refer to the operating instructions for more information.*



DECK I key:
Switches to the DECK I functions when using a double cassette deck.

(FF) key:
Fast forwards the tape in the direction of the arrows.

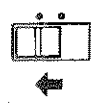
(PLAY) key:
Starts reverse playback.

(STOP) key:
Stops the tape.

(PLAY) key:
Starts forward playback.

(FF) key:
Fast forwards the tape in the direction of the arrows.

REMOTE CONTROL OF COMPACT DISC PLAYER (CD)



Set the TRANSMIT mode selector to AUDIO.

DISC SEL (DISC NO.) key:
For selection of particular discs in MULTI-PLAY COMPACT DISC PLAYER equipped with a disc magazine.

CD PGM key:
Works to switch the 1 — 10 (0) keys from the Tuner Station No., keys to the CD Track No., keys When selecting a CD track number, press the CD PGM key before pressing the 1 — 10 (0) keys. Note that pressing the ▶ key will switch back from the Track No., key setting to the Tuner Station No. key setting.

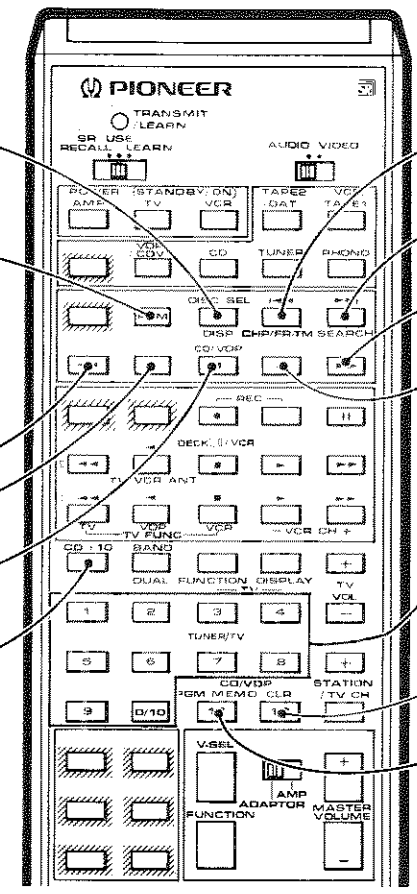
◀◀ (MANUAL SEARCH) key:
For fast backward search.

▮▮ (PAUSE) key:
Temporarily interrupts play.

■ (STOP) key:
Stop the disc.

+ 10 Key (for future use):
Use this key when selecting more than 10 tracks. This key adds 10 to the track number each time it is pressed.
Example: Track 31

[+ 10] · [+ 10] · [+ 10] · [1]



⏮ (TRACK SEARCH) key:
Returns to the beginning of the current track.

⏭ (TRACK SEARCH) key:
Goes to the end of the current track.

▶▶ (MANUAL SEARCH) key:
For fast forward search.

▶ (PLAY) key:
Begins play.

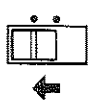
1 — 10 (0) (numeric) keys:
For direct selection of a track or programming of tracks.

NOTE: The track number key for the compact disc player is "0". The TUNER STATION number key is "10".

CLR (CLEAR) key:
Erases the current program from memory.

PGM MEMO (PROGRAM MEMORY) key:
Used for storing a program in memory.

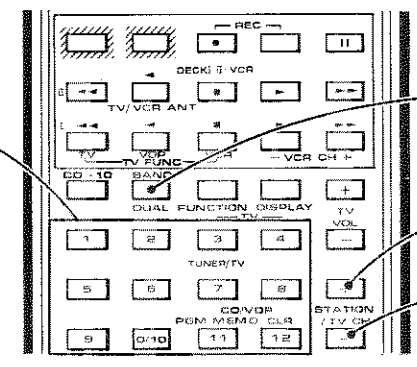
REMOTE CONTROL OF TUNER



Set the TRANSMIT mode selector at AUDIO.

1 to 12 (STATION CALL) keys:
For direct tuning of stations stored in STATION CALL memory.

- For tuners having 24-station memory, press once for stations 1 — 12 and twice for 13 — 24.



BAND key:
Switches between AM and FM or other.

STATION + (UP) key:
Increases the (PROGRAMMED) station number.

STATION — (DOWN) key:
Decreases the (PROGRAMMED) station number.

REMOTE CONTROL OF VIDEODISC PLAYER (VDP OR LD)

Set the TRANSMIT mode selector switch to VIDEO.

DISPLAY call key:
Display or clear the chapter and frame/time numbers on the screen.

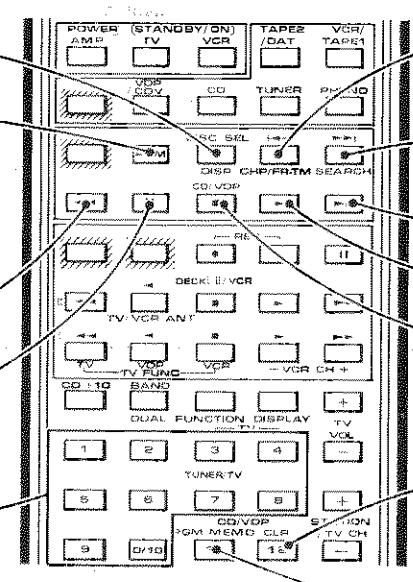
VDP PGM key:
Switches the 1 – 10 keys from the TV Channel keys to the VDP CHP/FR-TV keys:
To use the CHP/FR-TM keys, press this key to switch the key functions, then use the 1 – 10 keys. Note that pressing the ▶ key will switch back from the CHP/FR-TM key setting to the TV channel key setting.

◀◀ (SCAN) key:
For fast backward scanning.

▮▮ (PAUSE) key:
Temporarily interrupts video and audio playback.

1 – 10 (numeric) keys:
Used for chapter and frame/time number search and for chapter program play.

NOTE: The 10 key number for VDP CHPT/FRM is "0". The TV CH key number is "10".



CHP/FR-TM (CHAPTER/FRAME TIME) key:
Used for chapter or frame (time) search operation.

SEARCH key:
Used for search and memory repeat operation.

▶▶ (SCAN) key:
For fast forward scanning.

▶ (PLAY) key:
Selects playback.

■ (EJECT) key:
Playback is stopped when pressed once. Pressing again causes the disc tray to open.

CLR (CLEAR) key:
Used for canceling repeat playback, number correction and mode release during search operation, and for canceling program play.

PGM MEMO (PROGRAM MEMORY) key:
Used for chapter program play.

REMOTE CONTROL OF VIDEOCASSETTE DECK (VCR)

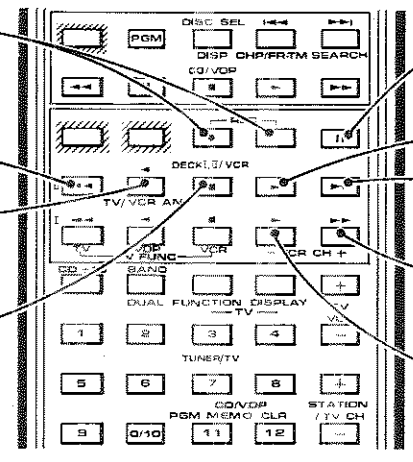
Set the TRANSMIT mode selector to VIDEO.

(REC) key:
Selects the recording mode.
Two keys must be pressed at the same time.

◀◀ (REW) key:
Rewinds the tape and allows picture search.

TV/VCR ANT key:
This key can be used only for VCRs with a VCR/TV selector. It switches the antenna output between VCR and TV.

■ (STOP) key:
Stops the tape.



▮▮ (PAUSE) key:
Temporarily interrupts recording or playback, producing a still picture during playback.

▶ (PLAY) key:
Starts playback.

▶▶ (FF) key:
Fast forwards the tape and allows picture search.

VCR CH + (UP) key:
Increases to the next number in the channel memory each time it is pressed.

VCR CH – (DOWN) key:
Decreases to the next number in the channel memory each time it is pressed.

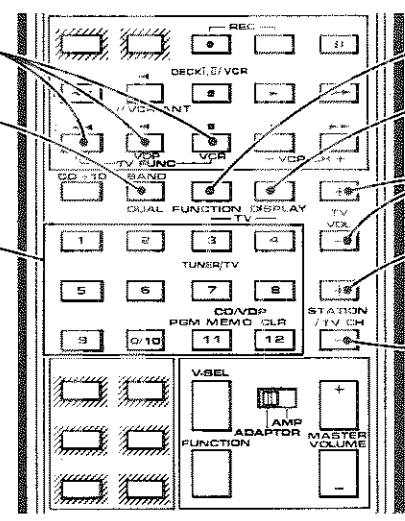
REMOTE CONTROL OF TV

Set the TRANSMIT mode selector to VIDEO.

TV FUNCTION keys:
Selects the TV function.

DUAL key:
Switches sound between MAIN, SAP, and MAIN/SAP during reception of multiplex TV sound. See TV operating instructions for details.

1 to 12 (CHANNEL CALL) keys:
Used to select channels, using the CHANNEL CALL function.



***TV FUNCTION key:**
Selects each function in a cyclic.

TV DISPLAY key:
Puts display on TV screen. Clears display from screen.

***TV-VOL +/– keys:**
For volume adjustment.

CHANNEL + (UP) key:
Increases up to the next number in the channel memory each time it is pressed.

CHANNEL – (DOWN) key:
Decreases to the next number in the channel memory each time it is pressed.

Note: Keys marked with "" have the same function in both the AUDIO and VIDEO positions.*

- Some televisions cannot be controlled using the TV FUNCTION key. If this is the case, please use the controller provided with the television.

REMOTE CONTROL OF ADAPTOR/AMP

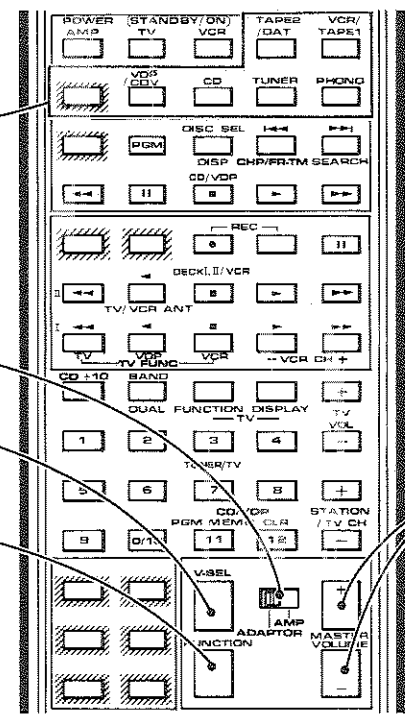
***FUNCTION SELECTOR keys:**
Press to select the audio source.

Note: Keys marked with "" have the same function in both the AUDIO and VIDEO positions.*

ADAPTOR/AMP (AMPLIFIER) selector:
Switches between amplifier and adaptor operation.

V-SEL (VIDEO SELECTOR) keys:
Used to select a video source. The sources switch cyclically.

FUNCTION key:
Used to select a audio source. The sources switch cyclically.



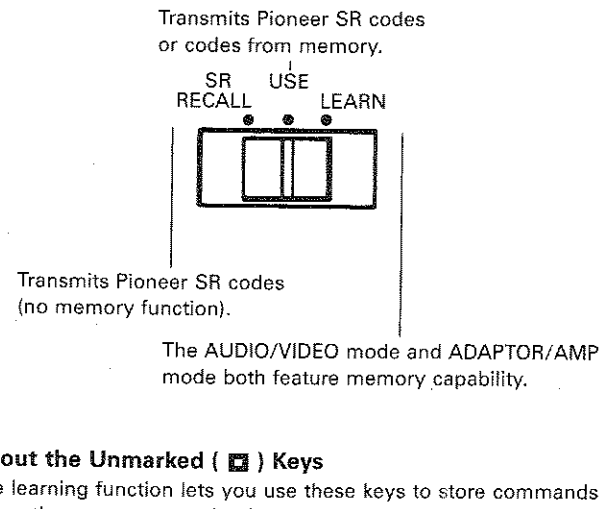
MASTER VOLUME keys:
Adjusts the overall (front and surround) volume.

USE OF LEARNING FUNCTIONS

Introduction

This remote control unit may "learn" the commands of other remote control unit, regardless of manufacturerer, as long as the other unit is of the infrared type.
In some cases you may still need the original remote control unit for special situations. But as a rule, you will be able to use this Pioneer remote for most system control needs, including video as well as audio equipment.

NOTE:
When using the "LEARN" mode it is a good idea to take the both remote control units to another room. This avoids problems such as sudden high volume output or accidental tape erasure that may occur if particular infrared command signals reach your components. Alternatively you may wish to unplug your component system. Simply turning off the power may not be sufficient since power on/off switching may also be remote controllable.



About the Unmarked (■) Keys

The learning function lets you use these keys to store commands from other remote control units. Until you "teach" these keys new commands, they will provide the following Pioneer SR command codes:

Ⓐ: TAPE I function

Ⓑ: SLEEP

Ⓒ: AUX function

Ⓓ: Tuner station mode select (1 – 12/13 – 24) or ANT selection

Ⓔ: BALANCE R (Left channel volume decrease)

Ⓕ: BALANCE L (Right channel volume decrease)

Ⓖ: SURROUND MODE selection

Ⓗ: MUTING

Ⓘ: SURROUND VOLUME UP

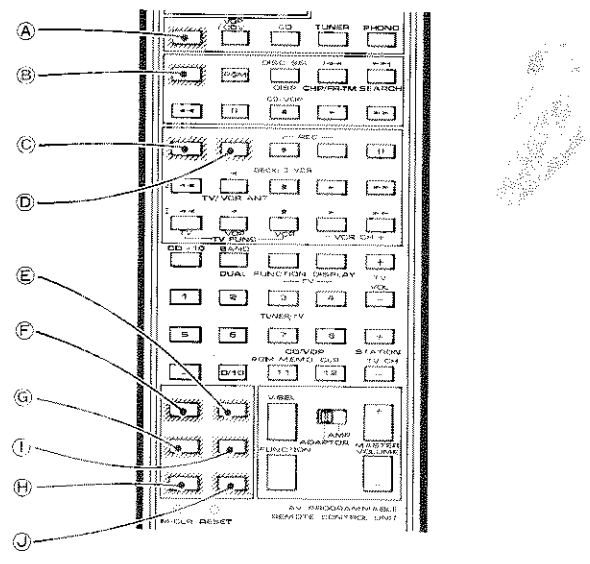
Ⓙ: SURROUND VOLUME DOWN

Which keys can be programmed with new commands?

By setting the SR RECALL/USE/LEARN selector to the LEARN position, you can memorize codes in the AUDIO mode and VIDEO mode for the TRANSMISSION mode switch. Memorization is also possible with the ADAPTOR/AMP switch in the ADAPTOR mode or AMP mode. (The AUDIO/VIDEO mode switch and the ADAPTOR/AMP switch do not affect each other.) The USE mode allows you to use the remote control to operate your system components. Only Pioneer SR codes are transmitted in the SR Recall mode, and one of the keys can be used for memory of other codes. The keys on the remote control unit change their functions according to the setting of the TRANSMISSION mode switch. You can switch the transmission mode between the AUDIO and VIDEO modes.
You can assign new commands to the keys in each of the modes. In the VIDEO and AUDIO mode, all keys can be assigned new commands.
When you first start using the remote control unit, it contains initial commands appropriate for Pioneer equipment (when set to the AUDIO and VIDEO modes). If your audio and video equipment consists of Pioneer components exclusively you can use the remote control unit as is. It is also possible to restore the original Pioneer commands after assigning other commands. (Refer to "Returning to the Initial Settings" for this procedure.)

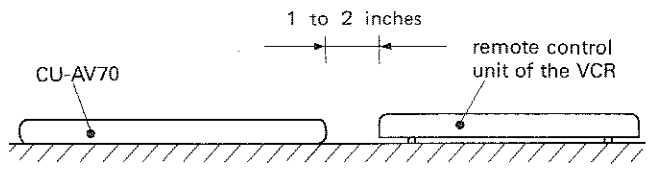
Other Important Notes

- A total of approximately 40 commands may be used for memorization of other codes. (This may vary depending on the command for mat of the codes to be memorized.)
- There are 2 REC keys on the remote control unit to prevent misoperation. To start recording, or to memorize a command code with the REC keys, they must both be pressed at the same time.
- If the batteries become weak, all functions will be stopped automatically. If the indicators no longer light or flash, or components do not respond to signals from the remote control unit, you should replace the batteries with a set of fresh once. (Always use the recommended size LR6/AM3-alkaline cells.)
- When pressetting keys, make sure that the remote control units of both this and the other component are loaded with fresh batteries.
- For some special remote signal types of infrared remote control units programming may be impossible.



[Operation example]

1. **Set the SR RECALL/USE/LEARN switch of the programmable remote control unit to the LEARN position and set the TRANSMISSION mode switch to the VIDEO position.**
   - Programming is possible with the TRANSMIT mode selector switch in any positon, but VIDEO is used as an example.
2. **Place the transmission sections of the programmable remote control unit and the remote control of the VCR facing each other.**



   - Place the two units on a table, separated by 2 to 5 cm (1 to 2 inches).
     Memorization will not be possible if they are too close.

3. **Hold down the VCR PLAY key of the programmable remote control unit until the LEARN indicator lights up, then release the key.**
4. **Hold down the PLAY key of the VCR remote control unit.**
5. **Release the key of the VCR remote control unit after making sure that the LEARN indicator has gone out on the programmable remote control unit.**

NOTE:
If the LEARN indicator flashes, it indicates that you are trying to preset a key not available for the learning function, or otherwise the program capacity has been exceeded. In case the program capacity has been exceeded, the function programmed last will not be memorized correctly. All previously programmed functions, however, will be retained in memory and may be used as they are if the last function is not essential. For re-programming refer to page 24 "Returning to the Initial Settings".

6. **Set the SR RECALL/USE/LEARN selector switch of the programmable remote control unit to the USE position.**
   - The previous code (Pioneer uniform remote control code or code for other equipment) is erased and replaced by the new code.
7. **Check that the program works.**
   - Try actual operation and make sure the unit works properly.
   - If the VCR does not operate when pressing the key, change angle, position and distance between both remote control units and repeat the programming procedure.
   - When programming, make sure that the function indications (for example, ▶, ▶▶, ■) on the other remote control unit and the programmable remote control unit are the same. This will facilitate operation.

Questions and Answers about the Learning Function

Q: The remote control unit of my VCR has two REC (recording) keys. They both have to be pressed at the same time to start recording. What is the learning procedure in this case?
A: Hold one of the keys on the programmable remote control depressed (except the VCR ● key) until the TRANSMIT/LEARN indicator lights up, and then press the two keys on the VCR remote control simultaneously.
Q: The remote control unit of my VCR has a REC (recording) key and a PLAY (playback) key and they both have to be pressed at the same time to start recording. What is the learning procedure in this case?
A: Hold one of the keys on the programmable remote control depressed (except the VCR ● key) until the TRANSMIT/LEARN indicator light up, and then press the REC and PLAY keys on the VCR remote control simultaneously.

- As described above, operations which require two keys to be pressed at the same time are programmed by pressing the two keys simultaneously.

NOTE:
If both of the REC keys are not pressed simultaneously, the VCR key cannot be memorized.

Operating other equipment by the programmable remote control unit

1. **Set the SR RECALL/USE LAERN selector of the programmable remote control unit to the USE position.**
2. **Set the TRANSMIT mode selector switch to the desired position (AUDIO/VIDEO).**
   - Set the VIDEO position for programming as described in the example.
3. **Press the key of the desired function.**
   - The TRANSMIT/LEARN indicator lights up while the remote control unit is sending codes.

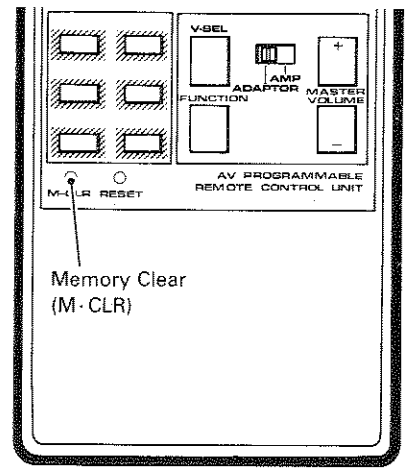
NOTE:

- *When operating a device with the programmable remote control unit, alwalys set the LEARN changeover switch to the USE positon.*
- *For functions which require two keys to be pressed at the same time (recording etc.) or functions for which several codes are sent simultaneously (auto functions, timer programming, etc.) the programming procedure is different and improper operation may occur.*
- *The remote control unit will not operate when the battery cover is removed.*

Returning to the Initial Settings

To return all settings to the Pioneer Uniform Remote Control Code settings, set the SR RECALL/USE/LEARN switch to the SR RECALL position. Proceed as follows to memorize new codes when the memory is full.

1. **Set the RECALL/USE/LEARN selector switch to the LEARN position.**
2. **Press one of the LEARN keys. The TRANSMIT/LEARN indicator will light up.**
3. **Use a ball-point pen or similar object to press the M-CLR key while the TRANSMIT/LEARN indicator is flashing.**
   - The programmed functions for the AUDIO and VIDEO positions are cleared, and the remote control unit is reset to the Pioneer uniform remote control codes.
   - Do not press the keys with too much force.



Battery Replacement

Replace the batteries as soon as possible if pressing the control keys does not cause the TRANSMIT/LEARN indicator to light even after the RESET button has been pressed. Learned commands will be lost from memory within a short time if batteries are removed. Therefore, have new batteries ready for replacement before removing old batteries.
Also, be sure to always use the specified batteries (LR6/AM3-alkaline batteries).

NOTE:
As the unit's power switch is connected to the battery compactment cover:

- *The unit will not operate when the cover is off even if batteries are loaded.*
- *If batteries are not loaded and the cover is replaced, the memory will be lost after a few seconds.*
- *With batteirs loaded and the cover off, memory is retained for about 30 minutes.*
- *Be very careful not to lose the battery compartment cover.*

To control a unit other than this receiver using the remote controller provided

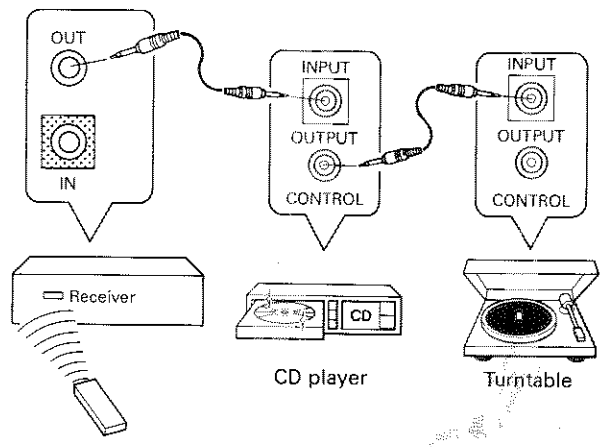
① In the case of a PIONEER unit marked SR which is provided with a remote sensor, operate the unit by aiming the remote controller at the remote sensor on the unit.

② For units with the SR mark, but without a remote sensor, as well as for units with the SR mark and a remote sensor etc., operation of the unit by facing the remote control unit towards the remote sensor of this unit is possible with connection from the CONTROL OUT jack to the CONTROL IN jack.
Use a commercially-available cable with mini-plugs for the connection.

NOTE:
The remote sensor of the unit with connection to the CONTROL IN jack may become inoperative.

Connections for remote control

When a remote control unit is connected to a PIONEER stereo component provided with a control input (CONTROL IN) jack, this system can then be operated by the accessory remote control unit. Use the remote control cord which comes with the respective unit for the connection. An example is shown in the drawing below. So long as you connect "OUT" → "IN", the connecting sequence is arbitrary. In the case of a unit which has only an "IN" connector, however, make connection to it last. Even when using these connections, if a remote control unit is provided with your stereo equipment, you can operate the remote control unit by facing it towards the remote control sensor on the receiver.



HINTS FOR BETTER RECEPTION

EXTERNAL FM ANTENNA

The main advantage of FM over AM is the quality of the broadcast signal. In order to benefit fully from the high signal quality of FM broadcasts, it is recommended that a special-purpose FM antenna be installed. In weak signal areas, a multi-element (3-element, 5-element, 7-element) antenna should be used.

FM OUTDOOR ANTENNA CONNECTIONS

To get the most from the receiver performance, a 75-ohm coaxial cable is recommended since it is more impervious than the twin-lead feeder to noise and interference from external sources. If an FM antenna has already been erected outdoors, connect it, referring to the figure.

GROUNDING

Grounding is recommended if reception of FM programs is impaired by noise. To ground, connect a thick polyvinyl insulated wire to the GND terminal and attach the other end to a metal water pipe or grounding bar or wind it around a copper plate and bury it.

NOTE:
Never connect a wire to a gas pipe for grounding since sparks may ignite the gas.

EXTERNAL AM ANTENNA

If it is not possible to obtain adequate AM reception even by changing the orientation of the AM loop antenna, a separate indoor antenna or an outdoor antenna should be installed.

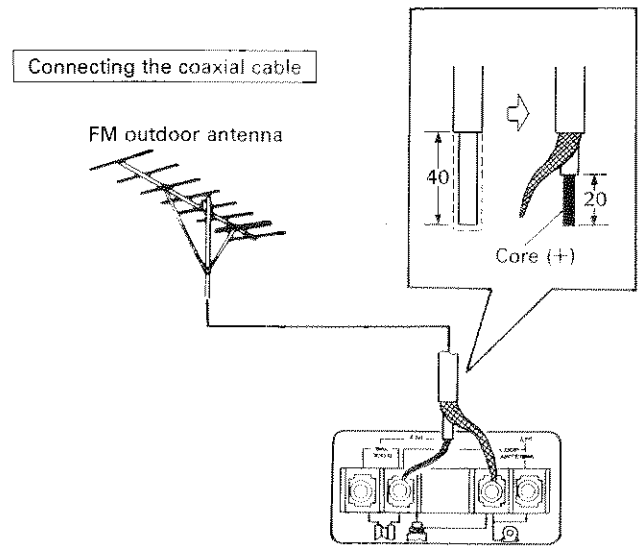
INDOOR AM ANTENNA

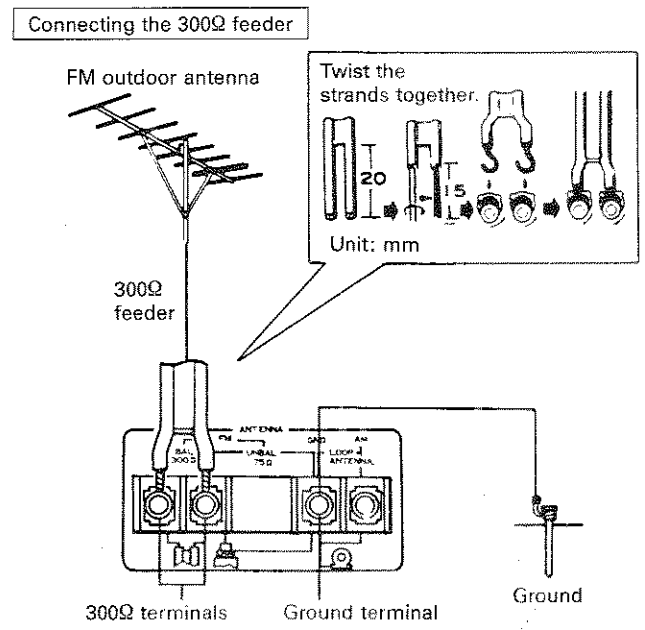
Use a vinyl-insulated wire (5—6 m) and connect one end to the AM antenna terminal and affix the other end to the wall or ceiling, as high as possible.

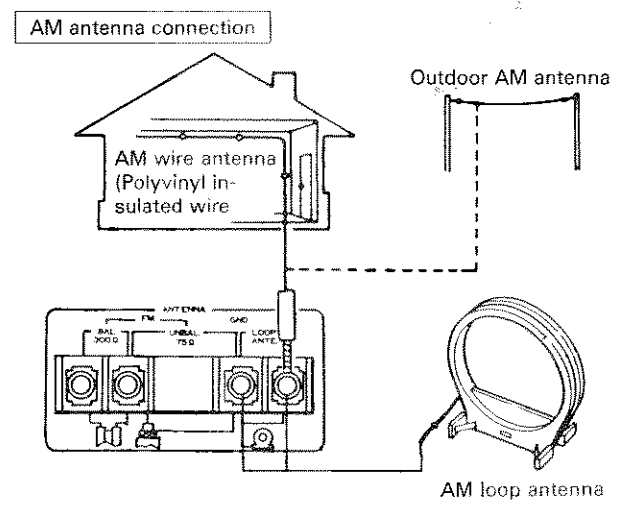
OUTDOOR AM ANTENNA

If reception quality is not improved sufficiently even when an indoor antenna is used, a vinyl-insulated wire should be installed outside and fixed in place.

NOTE:
Do not detach the AM loop antenna when using an indoor or an outdoor AM antenna.







TROUBLESHOOTING

Incorrect operations are often mistaken for trouble and malfunctions. If you think that there is something wrong with this component, check the points below. Sometimes the trouble may lie in another component. Investigate the other components and electrical appliances being used.
If the trouble cannot be rectified even after exercising the checks listed below, ask your nearest PIONEER authorized service center or your dealer to carry out repair work.

Symptom	Cause	Remedy
Power does not come on even when POWER switch is pressed.	• Power cord is disconnected.	• Connect cord securely.
No sound is produced even when audio/video function switch is selected.	• VOLUME control is set to 0 (minimum).	• Turn the VOLUME control to raise the volume level.
	• Speaker connecting wires are disconnected from speaker terminals.	• Connect wires to terminals securely.
	• One or both of the input cords are disconnected.	• Connect input cords securely.
Sound is produced from one speaker only.	• The muting switch is on. • TAPE 2/DAT is on.	• Turn muting off. • Turn off when not using component connected to TAPE 2/DAT.
	• BALANCE control is set too far to one side or the other.	• Set BALANCE control to center position.
	• One of the speaker connecting wires or input cords are disconnected.	• Connect wires and cords securely.
Noise is produced during reception of AM broadcasts when the power switch of this unit or other components is turned ON or OFF.	• AM loop antenna picks up electrical noise created by switch contacts.	• Place AM loop antenna as far away as possible from this and other components.
High noise level.	• Station has not been tuned in to correct frequency.	• Tune the station in correctly.
	• Antenna has not been connected or has become disconnected.	• Connect the antenna securely.
	FM reception • Accessory T-type antenna remains bundled up or it is not pointing in the right direction.	• Stretch both ends of antenna taut and locate in direction yielding optimum reception.
	• Weak broadcasting station signals.	• Replace accessory T-type antenna with outdoor FM antenna.
	• Noise picked up from other equipment (or, in particular, from passing automobiles). • Multipath results when signals from broadcasting station entering antenna directly are mixed with signals which have been reflected by mountains or high buildings on their way to antenna. This results in distorted sound and noise.	• Try altering direction and mounting position of antenna. If an outdoor antenna has been erected, place it as far away as possible from passing traffic and replace connecting cable with 75-ohm coaxial cable.
	AM reception • AM antenna not pointing in right direction.	• Change direction of AM antenna and find a position where reception is improved.
	• Weak broadcasting station signals.	• Erect outdoor AM antenna or connect ground wire.
	• Noise being picked up from other equipment (especially electrical appliances using motor or fluorescent lights).	• Stop using appliances generating noise or remove them from vicinity of stereo equipment.
No auto stop.	• Input signals are not strong enough.	• If a T-type antenna is used, change over to an outdoor antenna. • Perform manual tuning.
TV source cannot be seen when the VCR TV tuner is used.	• TV antenna is not connected to VCR, or connections are faulty.	• Consult the VCR operating instructions, and connect antenna correctly.
	• You are attempting to watch a TV source using a VCR with copy system connections. In general, when copy system connections are made, the VCR TV tuner function ceases to operate. For details, consult the operating instructions for your VCR.	• Disconnect the copy system connection (TV tuner function will operate).
Video tape copies cannot be made with the VCR.	• Video tape copy connections haven't been made.	• Look again closely at the section VIDEO SYSTEM CONNECTIONS on page 7 and connect correctly.

SPECIFICATIONS

Amplifier Section

Continuous Average Power Output is 80 watts* per channel, min., at 8 ohms from 20 Hertz to 20,000 Hertz with no more than 0.05% total harmonic distortion.**

Continuous Power Output (both channel driven)
- 1 kHz, T.H.D. 0.05%, 8 Ω ..... 95 W + 95 W

Dynamic power (2/4/8 Ω) ..... 190/165/120 W

Total harmonic distortion (measured by Audio Spectrum Analyzer)
- 1 kHz, 80 W, 8 Ω 0.01%

Input (Sensitivity/Impedance)
- PHONO MM ..... 2.5 mV/47 kΩ
- CD, VDP/CDV, VCR/TAPE 1, TAPE 2/DAT ..... 150 mV/22 kΩ

Phono Overload Level (T.H.D. 0.01%, 1,000 Hz)
- PHONO MM ..... 130 mV

Output (Level/Impedance)
- TAPE REC ..... 150 mV/2.2 kΩ

Frequency Response
- PHONO MM ..... 20 Hz to 20,000 Hz ±0.5 dB
- CD, VDP/CDV, VCR/TAPE 1, TAPE 2/DAT ..... 10 Hz to 70,000 Hz $^{+0.5}_{-3}$ dB

Signal-to-Noise Ratio (IHF, short circuited, A network)
- PHONO MM ..... 73 dB
- CD, VDP/CDV, VCR/TAPE 1, TAPE 2/DAT ..... 96 dB

Signal-to-Noise Ratio [EIA, at 1 W (1 kHz)]
- PHONO MM ..... 75 dB
- CD, VDP/CDV, VCR/TAPE 1, TAPE 2/DAT ..... 79 dB

Graphic Equalizer frequency band
..... 100 Hz, 330 Hz, 1 kHz, 3.3 kHz, 10 kHz, ±8 dB

* *Measured pursuant to the Federal Trade Commission's Trade Regulation rule on Power Output Claims for Amplifier.*

** *Measured by Audio Spectrum Analyzer.*

FM Tuner Section

Frequency range ..... 87.5 MHz to 108 MHz

Usable Sensitivity ..... 10.8 dBf, IHF (0.95 μV/75 Ω)

50 dB Quieting Sensitivity
..... MONO: 15.3 dBf (1.6 μV/75 Ω)
STEREO: 37.1 dBf (19.5 μV/75 Ω)

Signal-to-Noise Ratio
- MONO ..... 80 dB (at 85 dBf)
- STEREO ..... 76 dB (at 85 dBf)

Distortion
- STEREO ..... 0.3% (1 kHz)

Alternate Channel Selectivity ..... 55 dB (400 kHz)

Stereo Separation ..... 35 dB (1 kHz)

Frequency Response ..... 30 Hz to 15 kHz, ±1 dB

Output (FM 100% MOD)
- REC OUT ..... 650 mV

Antenna Input ..... 300 Ω balanced
75 Ω unbalanced

AM Tuner Section

Frequency range
- When 10 kHz step ..... 530 kHz to 1,700 kHz
- When 9 kHz step ..... 531 kHz to 1,602 kHz

Sensitivity
- IHF, Loop antenna ..... 300 μV/m

Selectivity ..... 25 dB

Signal-to-Noise Ratio ..... 50 dB

Output (AM 30% MOD)
- REC OUT ..... 150 mV

Antenna ..... AM Loop Antenna

Video Section

Input (Sensitivity/Impedance)
- VCR/TAPE 1, VDP/CDV ..... 1 Vp-p/75 Ω

Output (Level/Impedance)
- VCR/TAPE 1, MONITOR ..... 1 Vp-p/75 Ω

Frequency Response ..... 10 Hz — 6 MHz $^{+1}_{-2}$ dB

Isolation at 3.58 MHz ..... 60 dB

Signal-to-Noise Ratio ..... 50 dB

Miscellaneous

Power Requirements
- U.S., Canadian model ..... AC 120 Volts, 60 Hz
- Other models ..... AC 110/120 — 127/220/240 V (switchable), 50/60 Hz

Power Consumption
- U.S. and Canadian models ..... 475 W, 615 VA
- Other models ..... 595 W

Dimensions ..... 420 (W) × 120 (H) × 337 (D) mm
16-9/16 (W) × 4-3/4 (H) × 13-1/4 (D) in

Weight (without package)
- U.S. and Canadian models ..... 8.2 kg (18 lb 2 oz)
- Other models ..... 8.3 kg (18 lb 5 oz)

Furnished Parts

FM T-type Antenna 1
AM Loop Antenna 1
Operating Instructions 1
Remote control unit 1
Dry cell battery 2

NOTE:
Specifications and the design subject to possible modifications without notice due to improvements.

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